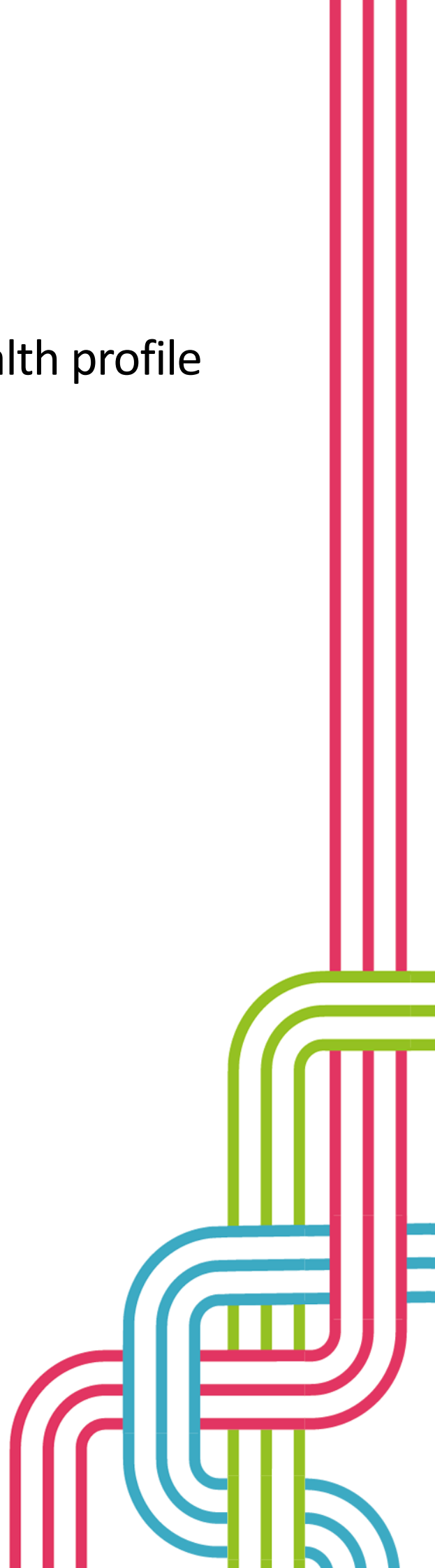


# Oral health in Suffolk – health profile

August 2022

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## Executive summary

**COVID-19:** The impact of the COVID-19 pandemic has been felt and experienced by young and old alike, and will affect people's lives both in the short, medium and long term. One of the many consequences of the pandemic has been its impact on data collection. Across many areas, such as the economy, education, health and wellbeing, the pandemic has affected what data has been collected and what has been published. Even when published, not all data has been comparable with pre-COVID-19 data. This includes oral health data. For example, some datasets are older than they would be usually due to publication delays, and hospital admissions may be impacted by restrictions due to the pandemic.

### Why is oral health important?

- Oral health is considered to be a key aspect of general health and wellbeing, with good oral health being linked to good quality of life <sup>1</sup>. Oral health directly affects a number of aspects of daily life that can improve or degrade an individual's quality of life <sup>2</sup>.
- Poor oral health can lead to pain for the individual, with potential loss of teeth and dental function, losing days from school or work, limiting social engagement and poor nutrition <sup>3</sup>. Additionally, the cost to the NHS of treating oral conditions is approximately £3.6 billion per year <sup>4</sup>.
- Ensuring positive oral health behaviours are implemented at a young age is particularly important, to establish patterns that will keep primary teeth healthy and limit impacts of oral diseases (particularly dental caries) on adult teeth.
- The impacts of poor oral health are not felt equitably across society. As with many health-related issues, there are inequalities in oral health in England <sup>5</sup>.

### Who is responsible for commissioning primary dental care services?

- NHS England are responsible for commissioning high quality primary care services for the population of England. This includes the Specialist Care Dentistry Service (SCDS) that was commissioned for Suffolk in 2019.
  - The Specialist Care Dentistry Service is broken down into two parts:
    - **Part A – Special Care Dentistry (Adults and Children) Referral Service**  
Provides a comprehensive range of activities to improve the oral health of children and adults who have a physical, sensory, intellectual mental, medical, emotional or social impairment or disability which makes routine care in general dental practice unsuitable or impractical for their needs.
    - **Part B – Dental Public Health Services** Support the health improvement roles of Suffolk by providing oral health promotion programmes, oral health surveys and other specified activities consistent with the policies and programmes of Suffolk.

### What does oral health look like in Suffolk?

#### Children

- Oral health in children in Suffolk is generally better than the England average, with lower rates of dental decay and hospital admissions for dental extractions. There are, however, inequalities in child oral health in Suffolk, with children living in the most deprived areas having statistically significantly higher rates of dental decay than children living in the most affluent areas of Suffolk.
- Areas such as Lowestoft, South Waveney and the Forest Heath area of West Suffolk had the highest rates of dental decay in Suffolk 5-year-olds in 2019. Although overall prevalence was not as high in Stowmarket, those children experiencing dental decay had on average a far greater number of teeth showing signs of decay.

## Adults

- Oral health in adults in Suffolk is generally similar to the England average, with mortality rates from oral cancer similar to the national rates and, according to the limited data from the National Dental Epidemiology Programme in 2018, slightly lower rates of dental decay and slightly higher rates of functional dentition (where 21 or more teeth are present) for Suffolk residents. Data on oral health in adults is more limited than for children

## Access and inequalities

- Accessibility of appointments with NHS dentists in Suffolk is lower than regional and national averages – success rates when trying to book NHS dental appointments were much lower for residents of the three former Suffolk Clinical Commissioning Group (CCGs) (Ipswich and East Suffolk, West Suffolk & Norfolk and Waveney) than both the East of England regional and England national average.
- There are further structural inequalities in accessing NHS dental care within Suffolk, with 13% of the population living in rural areas that are not within 30 minutes of NHS dental services by public transport.
- West Suffolk had the lowest NHS dental activity rates (defined as being the proportion of people in a given area who have attended a dentist in the previous 12 months, if under 18 years old, or 24 months, if 18 or over) of the five Suffolk Lower Tier Local Authorities (LTLAs) in periods to both April 2020 and April 2021 – both were statistically significantly lower than the East of England regional average. Bury St Edmunds Central was the Middle Super Output Area (MSOA) that had the lowest NHS dental activity rates for Suffolk in this timeframe. The Waveney area of East Suffolk generally had the highest NHS activity rates to both April 2020 and April 2021, although still had particularly poor child oral health outcomes, as stated above. These data do not include dental activity rates for private dentistry, so may not fully represent total dentist activity rates in areas where private dentists are used more frequently.
- Whilst there is no obvious trend between Index of Multiple Deprivation **rank** by LSOA and NHS dental activity rates, when looking at IMD quintile data, statistically significantly lower levels of NHS dental activity rates are observed in quintile 3 (average deprivation levels). It is very difficult to interpret the relationship between NHS dental activity and deprivation in Suffolk in recent years, due both to the pandemic, and to the confounding factor of private dentistry. The potential confounder of private dentistry is a factor which could not be accounted for in this analysis.
- From this analysis geography appears to be a bigger driver of NHS dental activity rates –with northwest Suffolk and rural parts of Babergh consistently having the lowest NHS age-standardised dental activity rates in Suffolk.
- NHS dental activity rates have been impacted by the first year of the COVID-19 pandemic, with activity decreasing across all ages and geographies as dental services were particularly limited in 2020-21.
- Data on dietary metrics that are related to oral health are often not available to local authority level, however for those metrics where there are data, Suffolk generally does better than the regional/national averages, and when compared to statistical nearest neighbours. For example, Suffolk was the Upper Tier Local Authority (UTLA) with the highest rate of “5-a-day” fruit and vegetable consumption in the East of England in 2019-20 and had some of the lowest childhood obesity rates compared to statistical nearest neighbours in 2019-20. There was a stark increase in prevalence of obesity in Reception aged children in Suffolk in 2020-21, from 8.6% to 14.4% in a single year, however data collection was impacted by the COVID-19 pandemic and therefore not all other UTLAs had representative data for comparison to regional and statistical nearest neighbour rates.
- Suffolk is in an area with generally naturally occurring higher fluoride levels in drinking water, and as a result, there is no fluoridation scheme for Suffolk water. This is not equal across the county, however, with some parts of Northwest Suffolk, in the Forest Heath area, and in Lowestoft having particularly low fluoride concentrations in drinking water (0.1 – 0.2 mg/l) compared to 0.4 - 0.7 mg/l for areas in Babergh and Mid Suffolk. These areas with lower fluoride concentrations are some of the key areas highlighted as having poorer oral health outcomes. Whether this relationship is causal or correlational was not possible to determine within this analysis.
- At a regional level, there are known inequalities in terms of dental decay by ethnicity, with children of Asian/Asian British ethnicities having statistically significantly higher rates of incisor decay than children of Black, Mixed or White ethnicities. There are no available data at a local authority level to be able to examine whether this trend holds true for Suffolk.

## Introduction

Oral health is considered to be a key aspect of general health and wellbeing, with good oral health being linked to good quality of life <sup>1</sup>. Oral health directly affects a number of aspects of daily life that can improve or degrade an individual's quality of life, such as eating, speaking, comfort, appearance and social activity <sup>2</sup>. The World Health Organisation recognises the importance of oral health globally, with oral diseases affecting 3.5 billion people worldwide, often with differing issues impacting people from low-, middle- and high-income countries.

Poor oral health can lead to pain for the individual, with potential loss of teeth and dental function, losing days from school or work, limiting social engagement and poor nutrition <sup>3</sup>. Additionally, the cost to the NHS of treating oral conditions is approximately £3.6 billion per year <sup>4</sup>. Some key risk factors for poor oral health in England include diet (particularly high consumption of "free sugars"), smoking and tobacco use, alcohol misuse and poor oral hygiene. Poor oral health is almost entirely preventable, although requires behaviour change at a population level. The Office for Health Improvement and Disparities (OHID) publish and maintain an [evidence-based toolkit](#) for dental practitioners to assist with encouraging these required behavioural changes for improvement in oral health. Ensuring positive oral health behaviours are implemented at a young age is particularly important, to establish patterns that will keep primary teeth healthy and limit impacts of oral diseases (particularly dental caries) on adult teeth. Many of the key behaviours outlined by the OHID oral health evidence-based toolkit are targeted at parents of young children to develop these good habits with their children and encourage good oral health for life <sup>3</sup>.

The impacts of poor oral health are not felt equitably across society. As with many health-related issues, there are inequalities in oral health in England <sup>5</sup>. Key inequalities in England include socioeconomic position at an area-level (such as Index of Multiple Deprivation) and an individual-level (such as occupation), geography (such as region, county, sub-county area), protected characteristics (such as age, sex, ethnicity) and under-served populations (such as children in care, homeless population, prisoners). There is a known slope index of inequality with regards to child oral health, particularly in dental caries prevalence and tooth extractions in hospitals, with children living in the most deprived areas nationally having statistically significantly higher rates (worse health outcomes) than children living in more affluent areas <sup>5</sup>. According to the UK adult dental health survey in 2009, people in routine and manual occupations were more than twice as likely to have functional limitations with their teeth than people in managerial and professional occupations (18% compared to 8%), with routine and manual workers also having far higher prevalence of dental caries (37% compared to 26% in managerial and professional workers) <sup>6</sup>.

By geography, the East of England region generally has some of the best oral health in England, with only 23% of adults having dental caries (compared to 28% in London, 34% in the North East and 39% in the West Midlands), only 42% display signs of visible plaque (compared to 67% in the South West and 81% in the North West) and 20% displaying "excellent oral health", the highest rate in England <sup>5,6</sup>. Despite this, however, there are several areas within the East of England where there are particularly poor oral health outcomes, for example Luton and Peterborough are the two Upper Tier Local Authorities with the highest prevalence of dental decay in 5-year-olds, with rates much higher than the England national average (>35% for Luton and Peterborough compared to approximately 22% for England nationally) <sup>7</sup>.

## Data limitations

Data for under-served populations are known to be particularly limited nationally, with most information coming from academic literature and specific research projects with restricted scope, rather than routine collection and analysis of data at national or regional levels <sup>5</sup>. There are further known limitations with regards to oral health inequality data collected through the Adult Dental Health epidemiological surveys, with data often not published to sub-regional level, data on ethnicity not published and trends in inequalities not analysed. Furthermore, these data are now considered to be particularly out-of-date, having been collected in 2009. The National Dental Epidemiology Programme surveys of children aged three and five are much more comprehensive and up to date, with the most recent surveys completed in 2020 and 2019 respectively, however publicly available data is usually only produced to Lower Tier Local Authority level.

NHS dental activity data have been provided through the NHS Business Services Authority, to Lower Super Output Area (LSOA) level for the East of England. These data, however, do not include activity that has been conducted privately (not through the NHS), which make up a large proportion of treatments conducted in England.

# Current state of oral health in Suffolk

## Children

Data on the current state of oral health in Suffolk children have primarily come from the National Dental Public Health Epidemiology Programme (NDEP) for England, which consist of health surveys of children aged three and five years old carried out by the Office for Health Improvement and Disparities (OHID). The most recent surveys are the 2019 survey of 5-year-olds<sup>8</sup> and the 2020 survey of 3-year-olds<sup>9</sup>. These are supplemented by the Children’s Dental Health Survey, which is a 10-year national survey carried out by the National Health Service (NHS), however the most recent of these was 2013 and is therefore considered to be quite out of date.

In the most recent NDEPs for both three-year-olds (2019/20) and five-year-olds (2018/19), Suffolk has had statistically significantly lower (better) rates of decayed, missing or filled teeth (dmft) than the England national averages (Figure 1; Figure 2).

dmft in three year olds

Mean - mean dmft per child

[Hide confidence intervals](#)   [Show 99.8% CI values](#)

[More options](#)



Recent trend: Could not be calculated

Period	Suffolk					Neighbors average	England
	Count	Value	95% Lower CI	95% Upper CI			
2012/13	-	0.20	0.14	0.26	-	0.36	
2019/20	-	0.09	0.04	0.14	-	0.31	

Source: Dental Public Health Epidemiology Programme for England: oral health survey of three-year-old children 2020

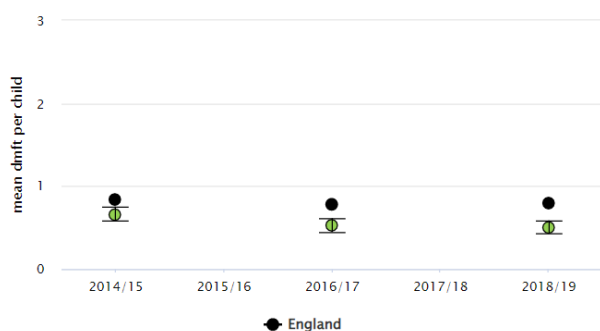
Figure 1: Decayed, missing or filled teeth in three-year-olds in Suffolk compared to the national average – National Dental Public Health Epidemiology Programme for England 2020

dmft (decayed, missing or filled teeth) in five year olds

Mean - mean dmft per child

[Hide confidence intervals](#)   [Show 99.8% CI values](#)

[More options](#)



Recent trend: Could not be calculated

Period	Suffolk					Neighbors average	England
	Count	Value	95% Lower CI	95% Upper CI			
2014/15	-	0.66	0.58	0.74	-	0.84	
2016/17	-	0.53	0.44	0.61	-	0.78	
2018/19	-	0.50	0.42	0.58	-	0.80	

Source: Dental Public Health Epidemiology Programme for England: oral health survey of five-year-old children 2019

Figure 2: Decayed, missing or filled teeth in five-year-olds in Suffolk compared to the national average – National Dental Public Health Epidemiology Programme for England 2019

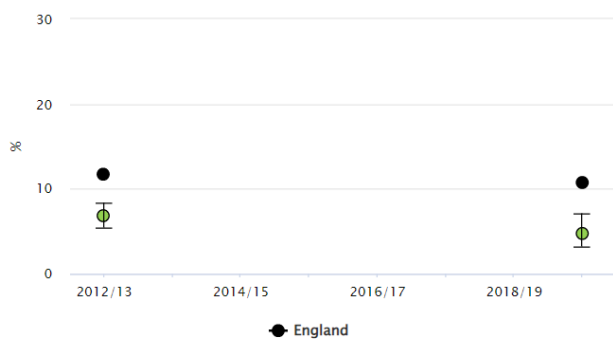
Similarly, Suffolk percentages of three- and five-year-olds with experience of visually obvious tooth decay are also statistically significantly lower than national averages (Figure 3; Figure 4). Rates of tooth decay increase dramatically between the ages of three and five, however, with the most recent data for Suffolk showing a more than tripling of visually obvious tooth decay (4.8% for three-year-olds compared to 15.7% for five-year-olds). It should be noted that these data are rates for each age group and do not track individual people over time. This level of increase between three- and five-year-olds is roughly in line with the national averages.

### Percentage of three year olds with experience of visually obvious tooth decay

Proportion - %

Hide confidence intervals Show 99.8% CI values

[More options](#)



Recent trend: Could not be calculated

Period		Count	Value	Suffolk		Neighbors average	England
				95% Lower CI	95% Upper CI		
2012/13	●	-	6.8%	5.4%	8.3%	-	11.7%
2019/20	●	-	4.8%	3.2%	7.0%	-	10.7%

Source: Dental Public Health Epidemiology Programme for England: oral health survey of three-year-old children 2020

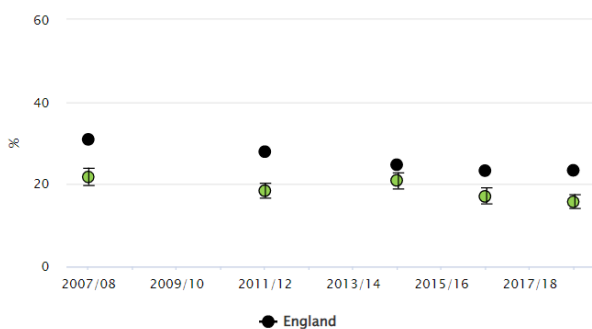
Figure 3: Percentage of three-year-olds with experience of visually obvious tooth decay in Suffolk compared to the England national average – National Dental Public Health Epidemiology Programme for England 2020

### Percentage of 5 year olds with experience of visually obvious dental decay

Proportion - %

Hide confidence intervals Show 99.8% CI values

[More options](#)



Recent trend: Could not be calculated

Period		Count	Value	Suffolk		Neighbors average	England
				95% Lower CI	95% Upper CI		
2007/08	●	-	21.8%	19.6%	24.0%	-	30.9%
2011/12	●	-	18.4%	16.5%	20.3%	-	27.9%
2014/15	●	-	20.8%	18.9%	22.7%	-	24.7%
2016/17	●	-	17.0%	15.2%	19.0%	-	23.3%
2018/19	●	-	15.7%	14.1%	17.5%	-	23.4%

Source: Dental Public Health Epidemiology Programme for England: oral health survey of five-year-old children (Biennial publication - latest report 2019) <https://www.gov.uk/government/collections/oral-health-surveys-and-intelligence-children>

Figure 4: Percentage of five-year-olds with experience of visually obvious tooth decay in Suffolk compared to the England national average – National Dental Public Health Epidemiology Programme for England 2019

Comparisons between the five Suffolk Lower Tier Local Authorities (LTLAs) showed that West Suffolk had the highest rates of visible tooth decay in three-year-olds in 2020 (8.0% compared to 4.3% for Babergh, 3.8% for East Suffolk and 3.7% for Ipswich – Mid Suffolk’s numbers were suppressed as fewer than 30 participants exhibited decay)<sup>9</sup>. These comparisons, however, are based on relatively small numbers of individuals, and therefore should be treated with caution. For five-year-olds, East Suffolk and West Suffolk had the highest rates of experience with dental decay (Figure 5)<sup>8</sup>.

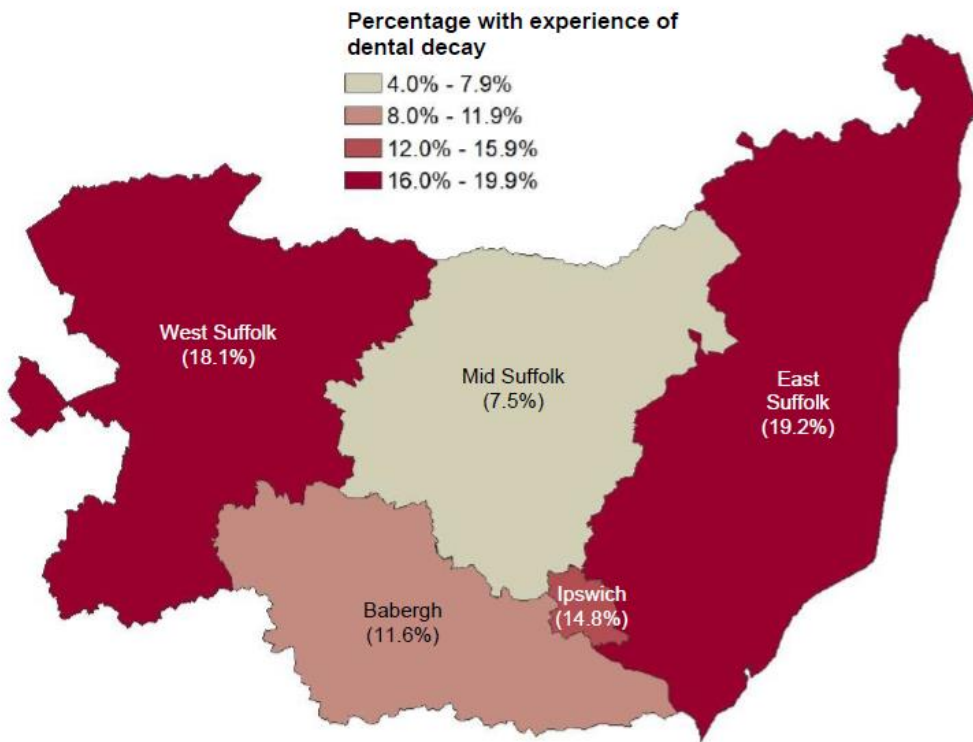


Figure 5: Percentage of five-year-olds with experience of dental decay by Suffolk Lower Tier Local Authority – National Dental Public Health Epidemiology Programme for England 2019

Prevalence of caries affecting incisor teeth in children is a key metric that is examined in the NDEP, as this decay is associated with long-term bottle use with sugar-sweetened drinks<sup>10</sup>. Rates of caries affecting incisor teeth in both three- and five-year-olds in Suffolk are lower than the England national averages (0.8% and 2.5% for Suffolk respectively compared to 3.4% and 5.2% for England), however these figures have not been tested for statistical significance<sup>9,11</sup>.

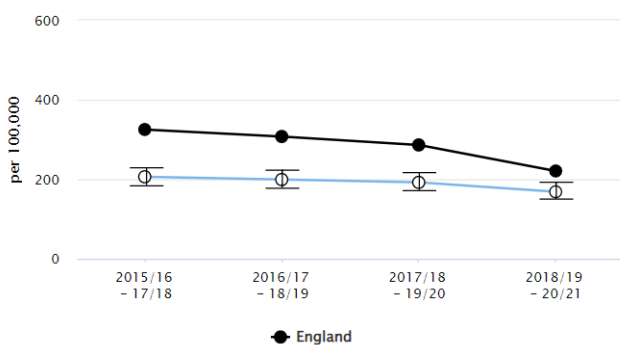
This lower prevalence of incisor caries, DMFT and visual decay are also reflected in the rate of hospital admissions for dental caries for 0–5-year-olds (Figure 6), which have remained consistently statistically significantly lower (better) for Suffolk as a whole, compared to England, over the most recent four years of data. When compared to the East of England rate, Suffolk’s rate is statistically significantly higher. However, when compared to Suffolk’s children’s services statistical neighbours (CSSNBT), while Suffolk’s rates are slightly higher than the average of the nearest statistical neighbours, they are not significantly higher (Figure 6).

Hospital admissions for dental caries (0-5 years)

Crude rate - per 100,000

[Hide confidence intervals](#)   [Show 99.8% CI values](#)

[More options](#)



Recent trend: Could not be calculated

Period	Count	Value	Suffolk		Neighbors average	England
			95% Lower CI	95% Upper CI		
2015/16 - 17/18	314	206.2	184.0	230.3	186.8*	325.1
2016/17 - 18/19	300	199.2	176.0	221.6	184.5*	307.5
2017/18 - 19/20	285	192.1	171.1	216.4	181.1*	286.2
2018/19 - 20/21	245	168.4	149.2	192.3	157.8*	220.8

Source: Hospital Episode Statistics (HES) Copyright © 2022. Re-used with the permission of NHS Digital. All rights reserved.

Figure 6: Hospital admissions rates for dental caries in 0-5-year-olds in Suffolk compared to England national and statistical nearest neighbour rates



## Hospital tooth extractions in 0 to 19 year olds

Data below is nationally published from the Hospital Episode Statistics (HES) dataset, starting from 2018 to 2019 and finishing at 2020 to 2021, and includes inpatient care figures from NHS hospitals across England. The report notes that whilst tooth decay in children has reduced in recent years stark inequalities remain. Tooth decay causes pain, infection, lack of sleep and time off school or work. It also costly to treat in general dental practices and hospitals. In 2020/21 the estimated costs of hospital admissions in 0 to 19 year olds for all tooth extractions was £21.8 million and for extractions due to tooth decay was £13.8 million<sup>12</sup>. Children have extractions carried out in hospital often because they need general anaesthetic for the procedure. They may be very young or uncooperative, have multiple teeth requiring extraction or have very broken down teeth or infection.

Figure 7 shows finished consultant episodes (FCE) where tooth extraction was mentioned in the diagnosis code for 0-19 year olds. This data shows a consistently statistically significantly higher rate of extractions in Ipswich compared to regional and national rates. When looking at the rates broken down by age, extraction rates in Ipswich are highest in children aged 6-10 years. When reviewing the percentage of FCEs for extraction with caries as primary diagnosis code for 0-19 year olds, the percentage ranged from 40.0% in West Suffolk to 76.5% in Ipswich (East of England: 43.2%, England 64.9%).

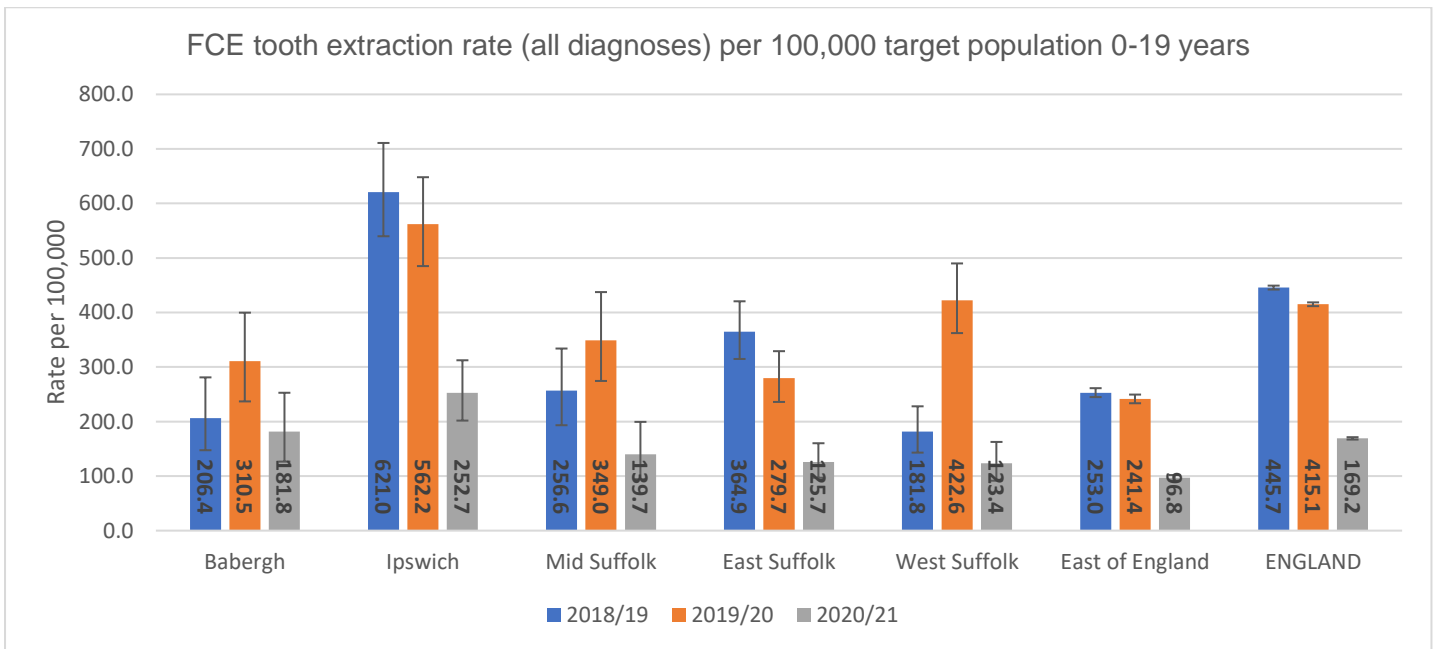


Figure 7: FCE tooth extraction rate per 100,000 population, by area and year for 0-19 year olds <sup>12</sup>

Table 1: FCE tooth extraction rate by age and area, per 100,000 population, 2020/21 <sup>12</sup>

FCE tooth extraction rate (all diagnoses) per 100,000 target population 2020/21					
Area	Age 0-5yrs	Age 6-10yrs	Age 11-14yrs	Age 15-19yrs	Total 0-19yrs
Babergh	198.3	298.2	c	c	181.8
Ipswich	279.5	389.7	302.8	c	252.7
Mid Suffolk	273.9	c	c	c	139.7
East Suffolk	110.2	146.1	129.2	117.3	125.7
West Suffolk	79.4	219.8	123.5	118.2	123.4
East of England	62.5	98.7	120.6	119.4	96.8
<b>ENGLAND</b>	<b>136.2</b>	<b>256.3</b>	<b>151.8</b>	<b>126.7</b>	<b>169.2</b>

\*Note red/amber/green colour shading has been applied by column to denote highest and lowest rates in each age group. NHS Digital guidance on rounding and suppression has been applied to the statistics provided below. Where numbers have been suppressed, they have a 'c' in place of a number.

## Local oral health improvement schemes and further information

Even though child oral health in Suffolk as a whole is generally quite good, there are known inequalities around the county, with some areas of particularly poor child oral health. As a result of local schoolteachers raising concerns regarding the oral health of primary school children in Lowestoft, a campaign is being started by [Lowestoft Rising](#) (a local public sector partnership) to provide schoolchildren with the equipment and skills to brush their teeth properly. With some teachers reporting that up to 50% of children in their classes do not regularly brush their teeth and have visibly poor oral health, Lowestoft Rising are providing 1,500 toothbrushing kits to all year 1 and year 2 primary school children across 20 primary and one secondary school in Spring Term 2022.

Similar schemes are also being run in both Felixstowe and Beccles as a result of similar concerns raised by schoolteachers in those towns. This work follows the continuing efforts of the Keep Suffolk Smiling campaign, which provides toothbrushing kits to parents at the 12-month health check stage for infants. After several years of funding by Suffolk County Council Public Health, NHS England have now taken over the funding of this programme in East and West Suffolk, however discussions are ongoing regarding the Waveney area of East Suffolk, as this falls under a different NHS Integrated Care Board (Norfolk and Waveney ICB). As part of Keep Suffolk Smiling, supervised toothbrushing sessions are run at 25 early years settings, selected based on deprivation and childhood obesity levels in the surrounding areas, with 25 primary schools being added to the supervised brushing programme from September 2022.

Despite Suffolk oral health in children generally being better than the England national average, the rates of child patients seeing an NHS dentist were lower for Suffolk than England nationally in the most recent available data, to the year ending 31 December 2021 (Figure 8). The stark impact of the early phases of the COVID-19 pandemic can be seen in Figure 8, with a dramatic decrease in the numbers of children seeing an NHS dentist throughout 2020 and early 2021, following several years of stable appointments. There were signs of recovery towards the pre-pandemic levels in the most recent available data (quarter ending 31 December 2021), but numbers were still much lower (64,198 compared to approximately 91,000 prior to March 2020).

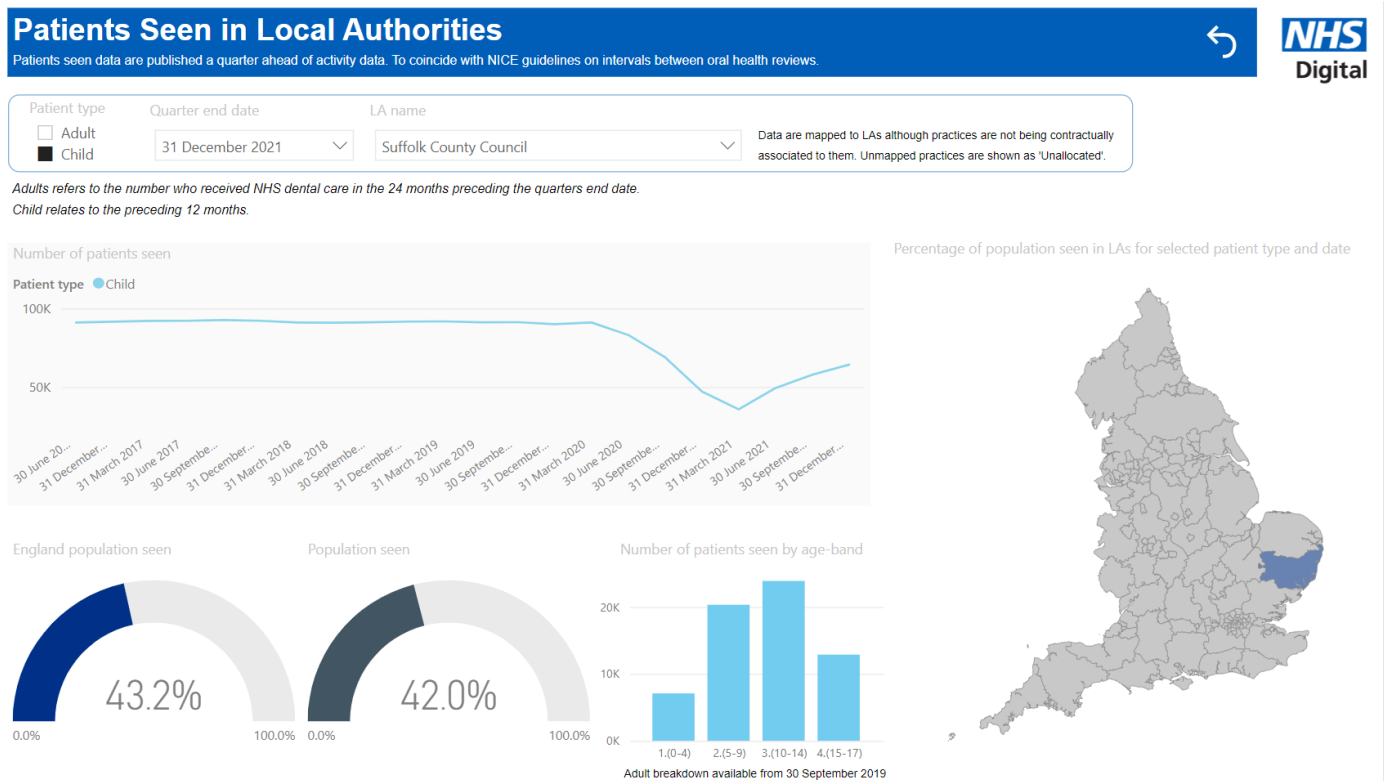


Figure 8: Child patients seen by NHS dentists for Suffolk UTLA in the year to 31st December 2021. <sup>13</sup>

## Adults

Data on the current state of oral health in Suffolk adults have primarily come from the National Dental Public Health Epidemiology Programme (NDEP) for England oral health survey of adults in practice, the latest edition of which was published in 2018 <sup>11</sup>. For this survey, the numbers of Suffolk residents examined or submitting questionnaires was particularly limited (84 clinical examinations and 110 questionnaires), and data were not collected for the former Forest Heath area of West Suffolk nor the former Waveney area of East Suffolk. As a result, limited inference should be taken from these data. Overall, the numbers reported by the NDEP oral health survey of adults in practice show that Suffolk is generally in line with England national figures. For example, 84.5% of Suffolk adults surveyed had functional dentition (defined as having 21 or more teeth present), which was similar to the 81.9% England average, and 25.0% of Suffolk adults had active decay compared to 26.8% for England (as there were no further data provided, statistical tests for significance could not be conducted).

Mortality rates from oral cancer in Suffolk residents were not statistically significantly different from either the East of England regional or the England national average in the most recent five years of data (from 2013-15 to 2017-19) (Figure 9). This represents a decline in health outcomes over time, with Suffolk previously having statistically significantly better (lower) mortality rates from oral cancers compared to the England national average between 2010-12 and 2012-14 (Figure 9). Smoking and alcohol consumption are known to contribute significantly to oral cancer risk, with 17% of UK oral cancers in 2015 being attributed to tobacco smoking alone and 34.4% attributed to alcohol drinking <sup>14</sup>. Although the percentage of attributable oral cancers is much higher for alcohol-drinking than for smoking, this is being driven by the fact that, across the population, alcohol drinking rates are substantially higher than smoking rates. The highest relative risk for alcohol attributable oral cancers comes from the heaviest drinkers (those who regularly consume more than 6.25 units daily – over 43 units weekly), with a relative risk of 5.13 compared to a reference group of occasional drinkers <sup>15</sup>, whereas it is known that even low levels of smoking rapidly increases cancer risk <sup>16</sup>. This means that at an individual level, smoking is a significantly higher risk for cancer than drinking alcohol <sup>14</sup>. Smoking prevalence in Suffolk has remained at approximately 14% of adults since 2016/17 (Figure 30) and according to the Health Survey for England, in 2015-18, 23.1% of adults in the East of England regularly drink over 14 units of alcohol per week.

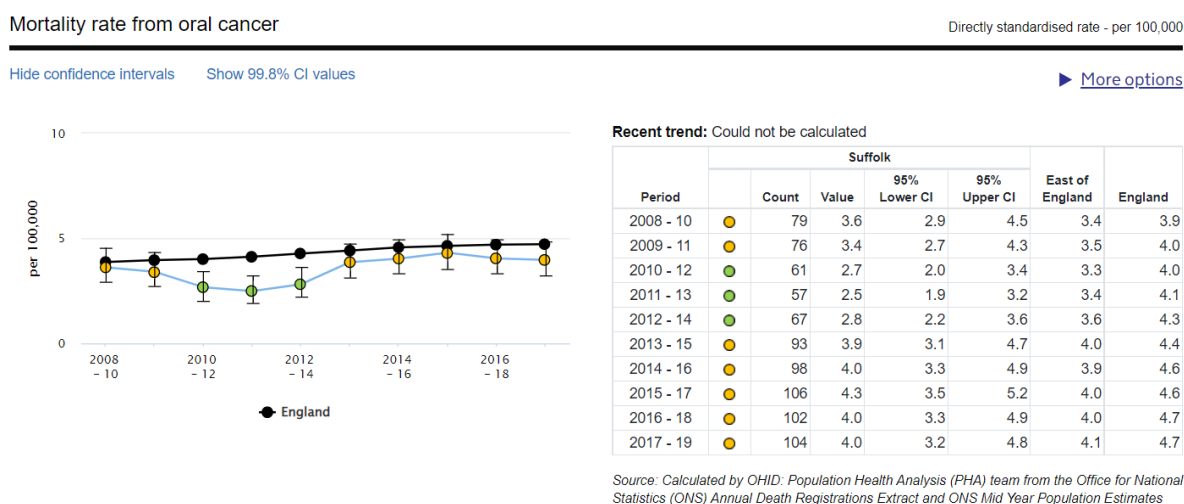


Figure 9: Mortality rate from oral cancer for Suffolk residents compared to England national rates

Dentist attendances for Suffolk adults are roughly in line with England national figures, with 36.9% of Suffolk adults having an appointment with an NHS dentist in the 24 months to 31 December 2021, compared with 36.0% nationally (Figure 10). In 10, the impact of the early stages of the COVID-19 pandemic on dental care in Suffolk are evident, with a 30% decrease in patients seen in the 24 months to 31 December 2021 compared to 31 March 2020 (224,354 compared to 319,146). In the four years prior to the start of the COVID-19 pandemic, however, there had been a steady decline in Suffolk adults receiving NHS dental care, from 341,255 in the 24 months to 30 June 2016 to 319,146 in the 24 months to 31 March 2020 <sup>13</sup>.

# Patients Seen in Local Authorities

Patients seen data are published a quarter ahead of activity data. To coincide with NICE guidelines on intervals between oral health reviews.



Patient type:  Adult  Child  
 Quarter end date: 31 December 2021  
 LA name: Suffolk County Council  
Data are mapped to LAs although practices are not being contractually associated to them. Unmapped practices are shown as 'Unallocated'.

Adults refers to the number who received NHS dental care in the 24 months preceding the quarters end date.  
 Child relates to the preceding 12 months.

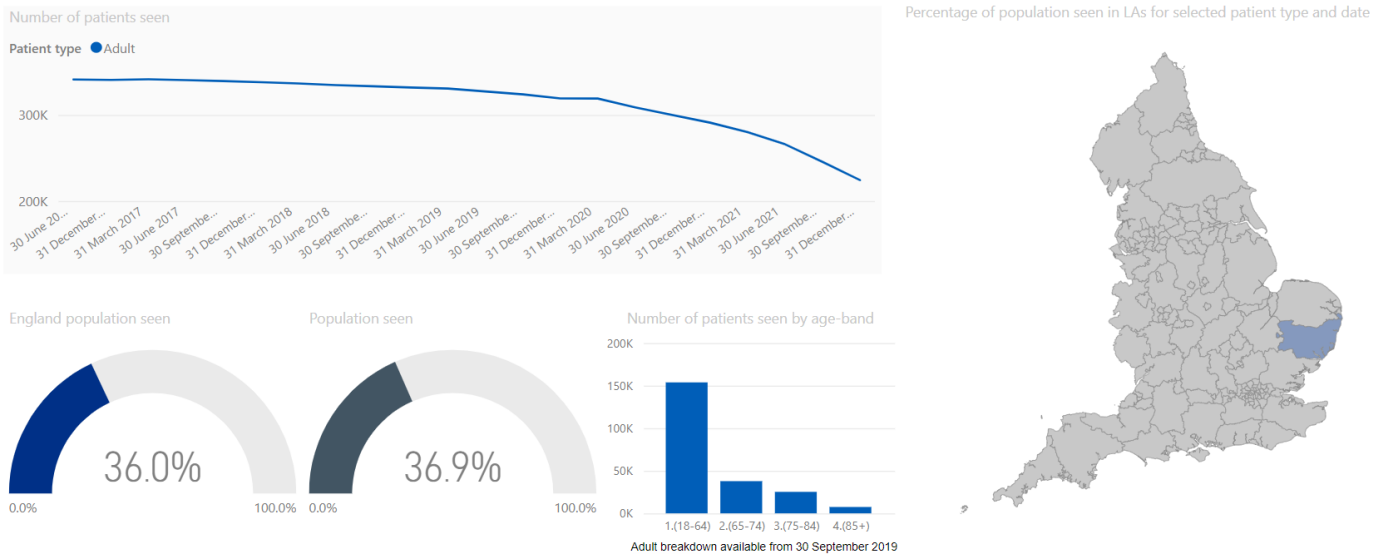


Figure 10: Adult patients seen by NHS dentists for Suffolk UTLA in the 24 months to 31st December 2021. <sup>13</sup>

Data from the NHS GP Patient Survey – Dental Statistics <sup>17</sup> provide one potential reason for the decline in NHS dental attendances for Suffolk residents in recent years (Table 2). Data are only provided to NHS Clinical Commissioning Group (CCG) level, but responses for each of the three CCGs serving the Suffolk population showed a higher percentage of people being unable to get an NHS dental appointment when trying in the last two years than either the England national or East of England regional average (Table 2). Only a small part of the Norfolk and Waveney CCG covers Suffolk (Lowestoft and the surrounding Waveney area), and therefore the vast majority of the data will refer to Norfolk residents, rather than Suffolk. This CCG has been included throughout this health profile for completeness.

Table 2: Weighted results of question on success in getting an NHS dental appointment in GP Patient Survey 2021 - Dental section for Suffolk CCGs, East of England region and England nationally

Commissioning Region or CCG name	Successful in getting an NHS dental appointment when trying in the last 2 years? (weighted)		
	% Yes	% No	% Can't remember
<b>ENGLAND</b>	<b>76%</b>	<b>21%</b>	<b>3%</b>
East of England	74%	22%	4%
NHS Ipswich and East Suffolk CCG	71%	26%	3%
NHS West Suffolk CCG	70%	27%	3%
NHS Norfolk and Waveney CCG	66%	31%	4%

The reported difficulties in obtaining NHS dental appointments in Suffolk are reflected in the overall experience of NHS dental services, with higher proportions of residents in the three Suffolk CCGs reporting fairly or very poor experiences compared to England nationally and East of England regionally (Table 3).

Table 3: Weighted results of question on experience of NHS dental services in GP Patient Survey 2021 - Dental section for Suffolk CCGs, East of England region and England nationally

	<b>Overall experience of NHS dental services for people who tried to get an appointment in the last 2 years (Weighted)</b>				
Commissioning Region or CCG name	% Very good	% Fairly good	% Neither good nor poor	% Fairly poor	% Very poor
<b>ENGLAND</b>	<b>51%</b>	<b>32%</b>	<b>10%</b>	<b>4%</b>	<b>3%</b>
East of England	44%	33%	12%	6%	5%
NHS Ipswich and East Suffolk CCG	40%	33%	11%	8%	7%
NHS West Suffolk CCG	40%	30%	14%	8%	8%
NHS Norfolk and Waveney CCG	39%	33%	12%	8%	8%

For both Ipswich and East Suffolk CCG and Norfolk and Waveney CCG, the percentage differences between men and woman in being successful in getting NHS dental appointments in the last two years is minimal (within 2 percentage points of each other; Table 4). Additionally, for these two CCGs, most age groups were able to get an NHS dental appointment with similar levels of success (Table 4). West Suffolk CCG, however, is a slight outlier here, with women only 67% successful in getting NHS dental appointments compared to 71% of men. Additionally, there are some slight inequalities in terms of age profile, with younger adults less likely to be successful in getting an NHS dental appointment (65% of 18-24 year olds and 62% of 25-34 year olds, compared to 75% of 55-64 year olds and 73% of 65-74 year olds; Table 4).

For each of the three Suffolk CCGs, proportions of respondents to the questionnaire who replied saying that they had not tried to get an NHS dental appointment for themselves within the last two years were in line with England and East of England percentages (38% for England, 42% for East of England, 42% for Ipswich and East Suffolk CCG, 43% for West Suffolk CCG and 38% for Norfolk and Waveney CCG). Despite this similarity, the reasons why Suffolk residents have not tried to get an NHS dental appointment are, in some cases, quite different to the regional and national averages (Table 5).

Compared to England and the East of England, a smaller percentage of people in Suffolk, particularly in Ipswich and East Suffolk, said that they did not need to visit a dentist, indicating that despite not accessing NHS dental care, there may actually be a higher need to do so compared to regional and national data (Table 5). There were also more Suffolk residents stating that they did not think they could get an NHS dentist than the English national average, a belief borne out by the slightly higher percentages of Suffolk residents on a waiting list for an NHS dentist. West Suffolk residents stated that they were more likely to prefer to go to a private dentist than elsewhere in Suffolk, or the regional/national averages.

Table 4: Results of question on people who tried and were successful in getting an NHS dental appointment in the last two years in NHS GP Patient Survey 2021 - Dental section

Commissioning Region or CCG name	Percentage of those who tried to get an NHS dental appointment in the last two years and succeeded													
	Sex of respondent			Age of respondent										
	All	Male	Female	All	16-17	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	
<b>ENGLAND</b>	<b>72%</b>	<b>73%</b>	<b>72%</b>	<b>72%</b>	<b>77%</b>	<b>72%</b>	<b>70%</b>	<b>71%</b>	<b>72%</b>	<b>73%</b>	<b>74%</b>	<b>74%</b>	<b>74%</b>	
East of England	73%	73%	72%	73%	76%	73%	71%	71%	72%	74%	75%	74%	72%	
NHS Ipswich and East Suffolk CCG	70%	71%	69%	70%	72%	65%	74%	66%	69%	68%	73%	73%	73%	
NHS West Suffolk CCG	69%	71%	67%	68%	69%	65%	62%	66%	66%	75%	73%	71%	69%	
NHS Norfolk and Waveney CCG	64%	65%	64%	64%	66%	65%	64%	66%	63%	63%	65%	65%	63%	

Table 5: Weighted results of question on why people have not tried to get an NHS dental appointment in the last two years in NHS GP Patient Survey 2021 - Dental section

Commissioning Region or CCG name	Why haven't you tried to get an NHS dental appointment in the last 2 years? (Weighted)									
	% Haven't needed to visit a dentist	% No longer have any natural teeth	% Haven't had time to visit a dentist	% Don't like going to the dentist	% Didn't think could get an NHS dentist	% On a waiting list for an NHS dentist	% Stayed with dentist when they changed from NHS to private	% Prefer to go to a private dentist	% NHS dental care is too expensive	% Another reason
<b>ENGLAND</b>	<b>22%</b>	<b>7%</b>	<b>2%</b>	<b>7%</b>	<b>8%</b>	<b>*</b>	<b>16%</b>	<b>24%</b>	<b>4%</b>	<b>9%</b>
East of England	22%	4%	3%	7%	13%	1%	11%	25%	4%	12%
NHS Ipswich and East Suffolk CCG	16%	4%	2%	6%	12%	2%	16%	25%	3%	13%
NHS West Suffolk CCG	18%	5%	1%	5%	12%	1%	16%	28%	2%	11%
NHS Norfolk and Waveney CCG	21%	6%	2%	7%	12%	2%	10%	23%	3%	13%

## Dental antibiotic prescribing in Suffolk

Data on dental antibiotic prescription rates in the East of England by lower tier local authority (LTLA) are held by NHS Business Services Authority (NHSBSA) and were provided by Dr Feema Francis (Consultant in Dental Public Health for the East of England). Total number of antibiotic items prescribed and the total number of FP17s (dental activity returns) by LTLA were provided by financial year for 2017-18 to 2020-21.

Across the East of England there was a trend for slightly higher antibiotic prescription rates per 100,000 population to occur in more deprived areas (Figure 11). Although this trend was not statistically significant, it remained relatively constant for the years prior to the COVID-19 pandemic, where data were impacted by decreases in dental activity and the number of prescriptions given.

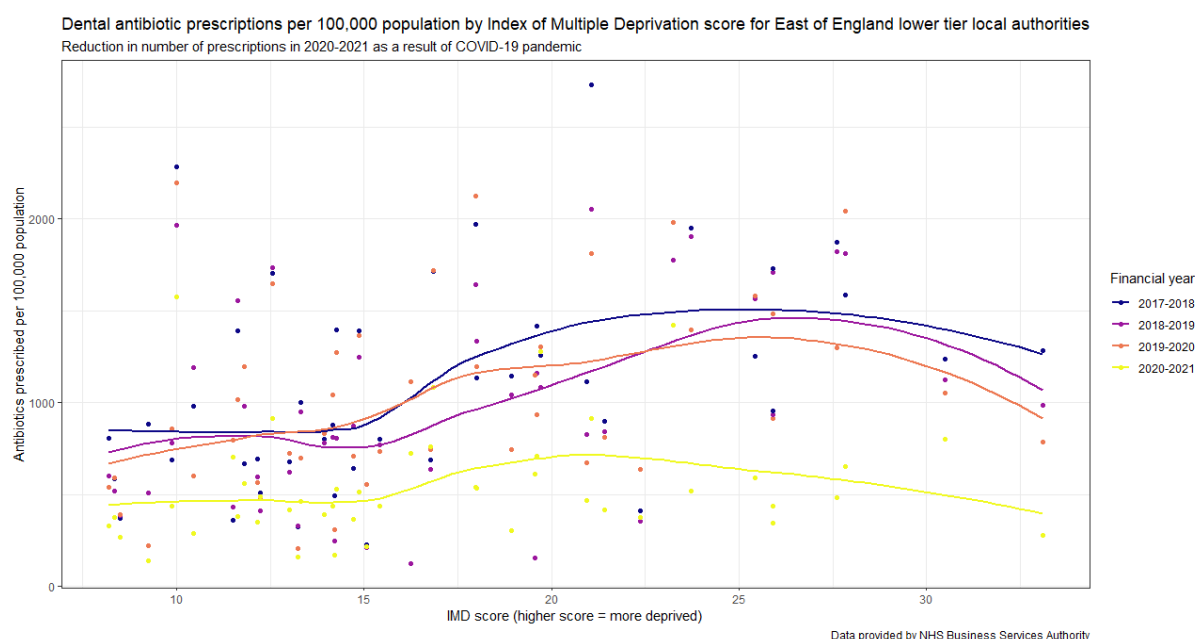


Figure 11: Dental antibiotic prescription rates in the East of England by Index of Multiple Deprivation score – data from NHS Business Services Authority

During the first year of the COVID-19 pandemic, there was a clear shift in terms of increased rates of antibiotic prescription per dental activity (FP17), with a much higher percentage of dental activities leading to prescription of antibiotics (Figure 12). Even though there were fewer antibiotics prescribed in 2020-21 (Figure 11), they made up a higher percentage of dental activities (Figure 12). It is believed that this is likely as a result of the combination of fewer routine, non-emergency check-ups taking place, and certain dental procedures (particularly aerosol generating procedures) being restricted<sup>18,19</sup>.

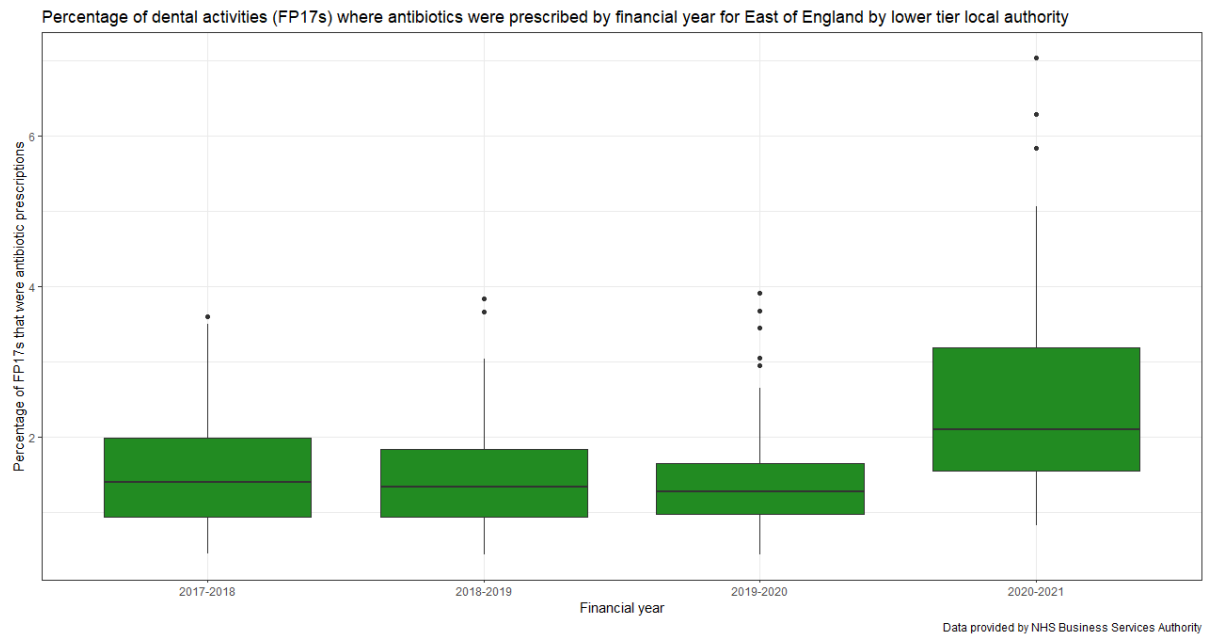


Figure 12: Percentage of dental activities where antibiotics were prescribed for East of England - data from NHS Business Services Authority

For Suffolk, Ipswich was the LTLA with generally the highest antibiotic prescription rates per 100,000 population (Figure 13). For both 2018-19 and 2019-20, Ipswich’s dental antibiotic prescription rate was statistically significantly higher than each of the other Suffolk LTLAs for which there were data and the East of England regional average. Mid Suffolk consistently has the lowest rates of antibiotic prescriptions for Suffolk LTLAs, being statistically significantly lower than other Suffolk LTLAs and the East of England region for all years between 2018-19 and 2020-21. In 2018-19, data were not available for East Suffolk and West Suffolk as these LTLAs were not created until 1<sup>st</sup> April 2019 with the merging of Suffolk Coastal and Waveney, and Forest Heath and St Edmundsbury respectively, and the data for these predecessor LTLAs were not provided by NHSBSA. As stated previously, the number of antibiotic prescriptions in 2020-21 were reduced due to the COVID-19 pandemic, but West Suffolk saw a higher prescription rate per 100,000 population than other Suffolk LTLAs in this year (Figure 13).



Dental antibiotic prescriptions per 100,000 population by financial year for Suffolk lower tier local authorities and East of England region  
 Reduction in number of prescriptions in 2020-2021 as a result of COVID-19 pandemic  
 Data for East Suffolk & West Suffolk in 2018-2019 not available as data for predecessor LTAs not provided

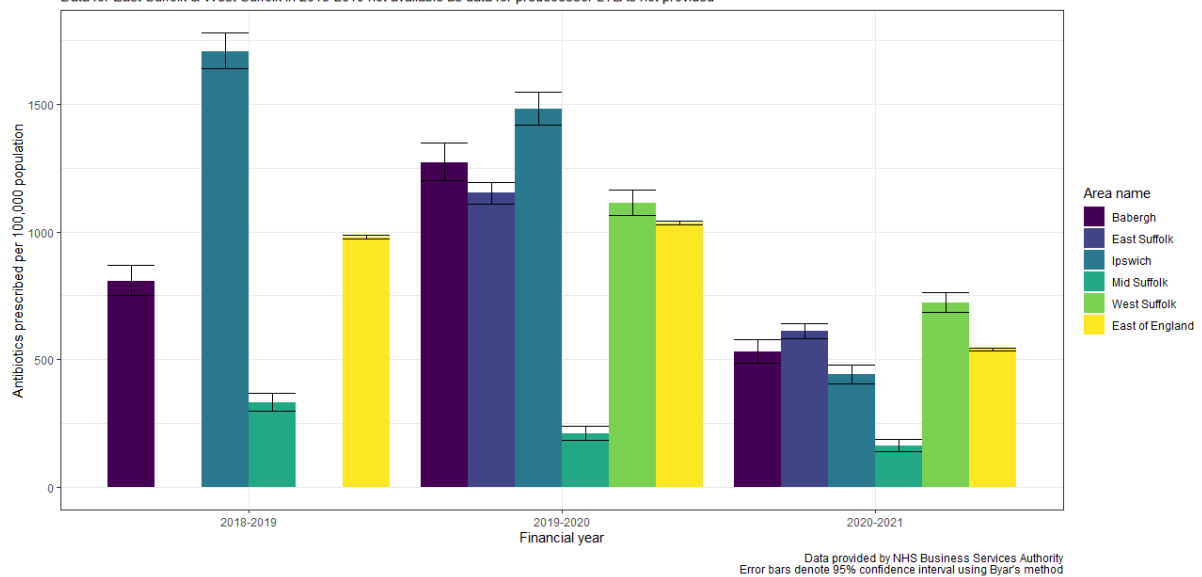


Figure 13: Dental antibiotic prescription rate per 100,000 population for Suffolk lower tier local authorities and East of England regional average by financial year - data from NHS Business Services Authority

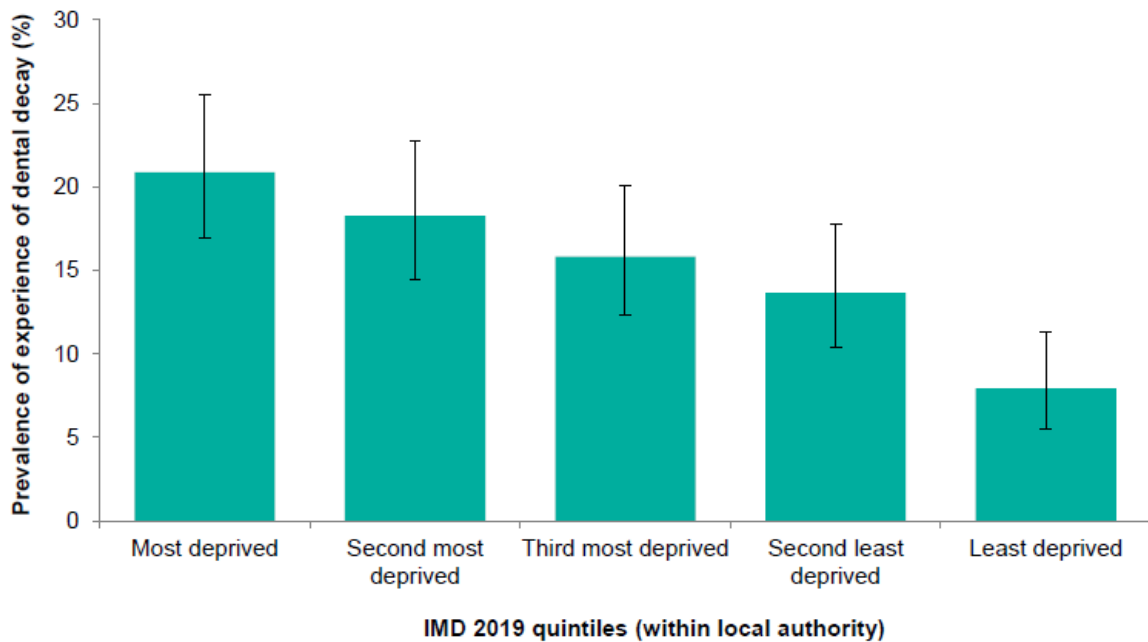
## Inequalities in oral health

It is known that good oral health is not experienced equally across England<sup>5</sup>. As in many other aspects of health, there are inequalities in terms of prevalence of disease and accessing appropriate care that are experienced by people of different demographics.

### Inequalities by demographic

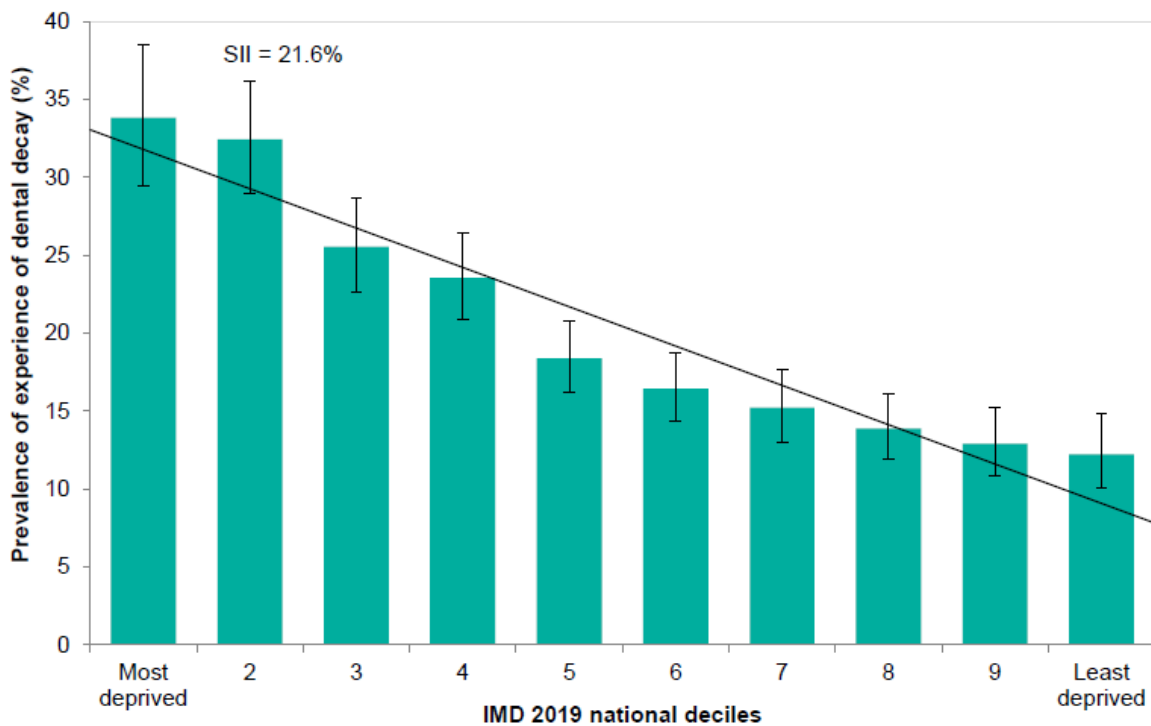
#### Socio-economic background

People living in more deprived areas often have poorer health outcomes than people living in more affluent areas. For Suffolk oral health, this inequality is evident when looking at the prevalence of dental decay in 5-year-olds (Figure 14). Children living in the most deprived areas are up to three times more likely to have had dental decay than children living in the least deprived areas (Figure 14). This is a trend that is representative of the regional prevalence too, with a clear slope index of inequality in the prevalence of dental decay in 5-year-olds in the East of England being visible in Figure 15.



Error bars represent 95% confidence limits

Figure 14: Prevalence of experience of dental decay in 5-year-olds in Suffolk by local authority Index of Multiple Deprivation (IMD) 2019 quintiles – data from National Dental Epidemiology Programme 2019 survey of 5-year-olds, figure from PHE Oral health profile for Suffolk, December 2020



Error bars represent 95% confidence limits

Figure 15: Slope index of inequality in the prevalence of experience of dental decay in 5-year-olds in the East of England – data from National Dental Epidemiology Programme 2019 survey of 5-year-olds, figure from PHE Oral health profile for Suffolk, December 2020

## Geography

As shown previously, the 2019 National Dental Epidemiology Programme (NDEP) identified inequalities in the experience of dental decay in Suffolk 5-year-olds by LTLA (Figure 5), however there are still some hidden inequalities when looking at data at this geographic level <sup>7</sup>. Despite Mid Suffolk having the lowest percentage of dental decay in 5-year-olds of the five Suffolk LTLAs (7.5% compared to 11.6% for Babergh, 14.8% for Ipswich, 18.1% for West Suffolk and 19.2% for East Suffolk), when looking at a Middle layer Super Output Area (MSOA) within Mid Suffolk, some areas have far higher prevalence of dental decay (Figure 16). Mid Suffolk 007 (Debenham, Stonham & Coddensham) and Mid Suffolk 011 (Needham Mark South & Great Blakenham) both had over 14% prevalence of dental decay, whereas no cases were reported for either Mid Suffolk 008 (Stowmarket West) or Mid Suffolk 009 (Stowmarket Outer, Finborough & Battisford). Data on the numbers of children examined for each MSOA are not available, however, so determining how truly representative of the population these estimates are is not possible <sup>7</sup>.

By Primary Care Network (PCN – groups of local GP practices working together), the highest rates of dental decay in Suffolk 5-year-olds in 2019 were seen in the Lowestoft (28.95%), Forest Heath (27.07%) and South Waveney (23.47%) PCNs <sup>7</sup>. The rates in Lowestoft are almost double the Suffolk average rate (15.7%). Although prevalence of dental decay in Stowmarket (7.38%) was lower than in the above PCNs, the mean number of teeth with dental decay in Stowmarket 5-year-olds who were experiencing dental decay was much higher there (5 teeth in Stowmarket, compared to 3.6 in Lowestoft, 3.7 in Forest Heath and 2.6 in South Waveney) <sup>7</sup>. This indicates that there are substantial inequalities within this PCN, with a minority of children having particularly poor oral health that are among the worst of those examined across the whole of Suffolk during the 2019 NDEP.

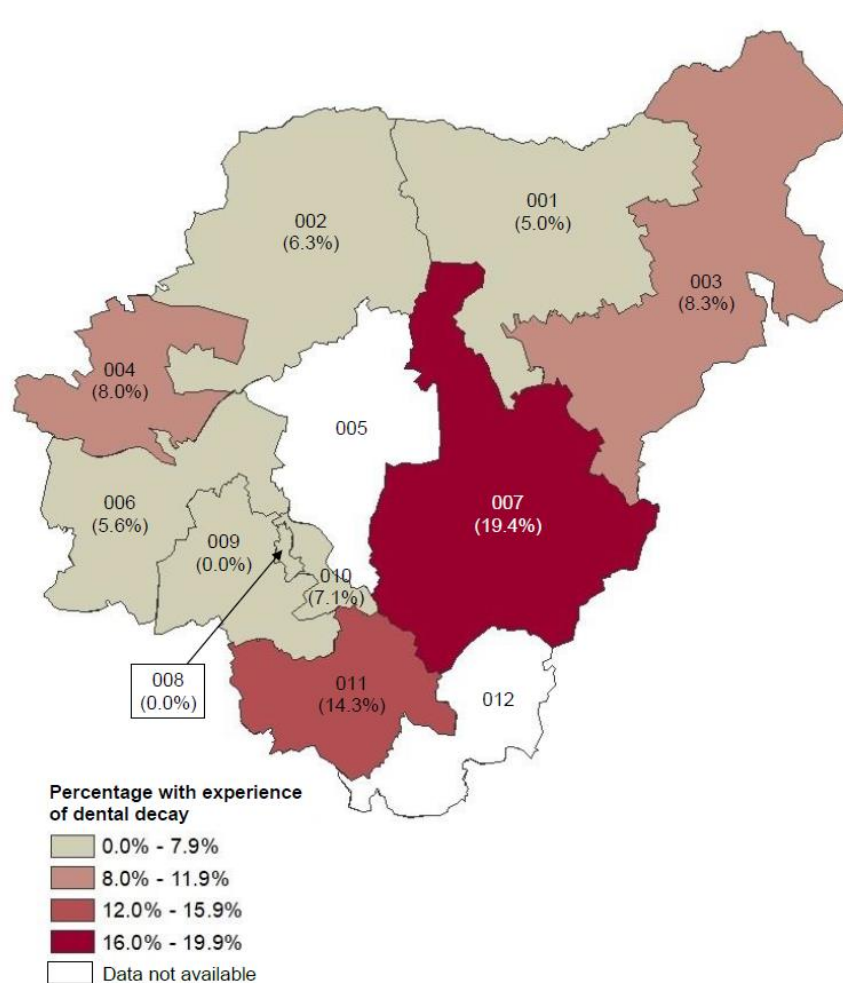
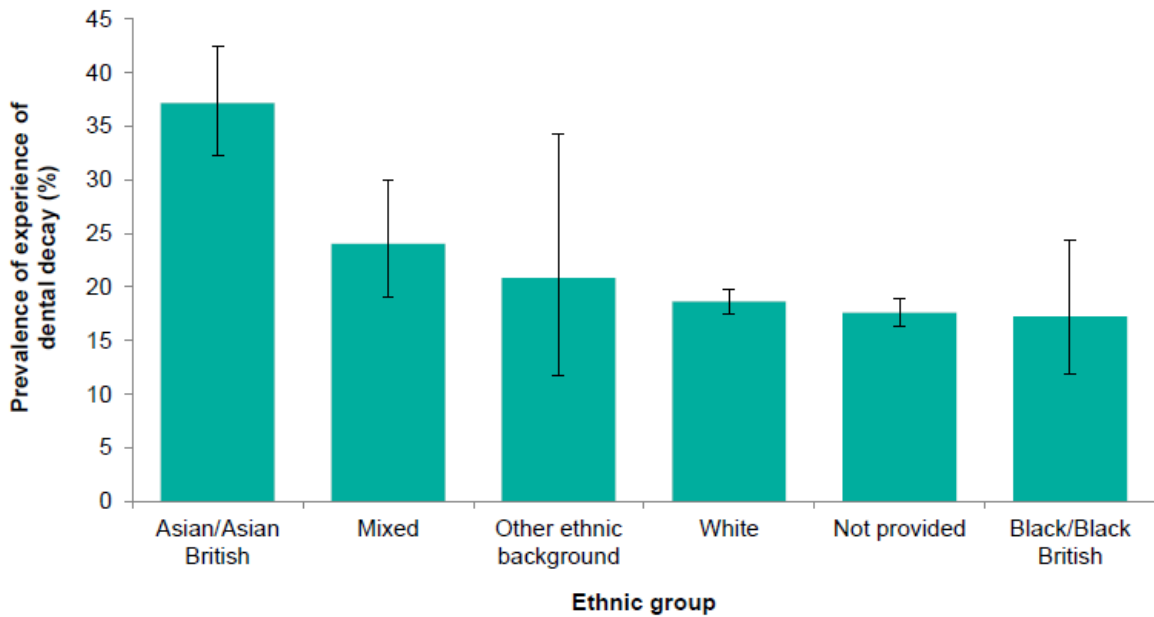


Figure 16: Prevalence of experience of dental decay in 5-year-olds in Mid Suffolk by Middle layer Super Output Area – data from National Dental Epidemiology Programme 2019 survey of 5-year-olds, figure from PHE Oral health profile for Suffolk, December 2020

### Ethnicity

Data on ethnicity from the 2019 NDEP are only available at a regional level <sup>7</sup>, but show substantial inequalities with Asian/Asian British children having statistically significantly higher prevalence of dental decay than most other ethnicity groups in the East of England (Figure 17). In particular, children of Asian/Asian British ethnicity had substantially higher prevalence of dental decay affecting incisors (12.8% compared to 3.6% for Black/Black British, 2.8% for White and 8.6% for Mixed ethnicity groups and 3.5% for the East of England average) <sup>7</sup>. Dental decay of the incisors is associated with the overuse of bottles with sugar-sweetened drinks, and this East of England trend of children of Asian/Asian British ethnicity having higher rates of incisor decay than children of Black, White and Mixed ethnicities reflects the national picture <sup>8</sup>.



Error bars represent 95% confidence limits

Figure 17: Prevalence of experience of dental decay in 5-year-olds in the East of England by ethnicity group – data from National Dental Epidemiology Programme 2019 survey of 5-year-olds, figure from PHE Oral health profile for Suffolk, December 2020

### Age and sex

Data on NHS dental services usage by age and sex are not available at geographies below a regional level. Information provided by NHS England and Improvement (NHSEI) show that, for the East of England, dental access crude rates for males are consistently lower than for females at the same age, particularly in younger adults (Figure 18). The impact of the first two years of the COVID-19 pandemic is particularly evident in Figure 18, with years 2017-2019 all having relatively consistent access rates for each age and sex grouping, but 2020 having a dramatic drop (approximately a third of previous levels) in terms of access to dental care. There was a recovery, up to approximately two-thirds of pre-pandemic levels, in 2021 but still not a complete return (Figure 18).

In 2017-2019, dental access crude rates of males aged 25-34 were the lowest age-sex grouping at approximately 300 per 1,000 patients (Figure 18), approximately two-thirds the rate of females of the same age. Generally, adult females in the East of England access dental services at similar rates regardless of age, with little sign of a trend between ages 18-24 and 65-74, before a slight increase in the 75+ age group. On the other hand, males display a strong association with age and dental access rates as younger males visit NHS dentists at much lower rates than older males, as 25–34-year-old male rates are approximately 60% of the 75+ male rates (Figure 18).

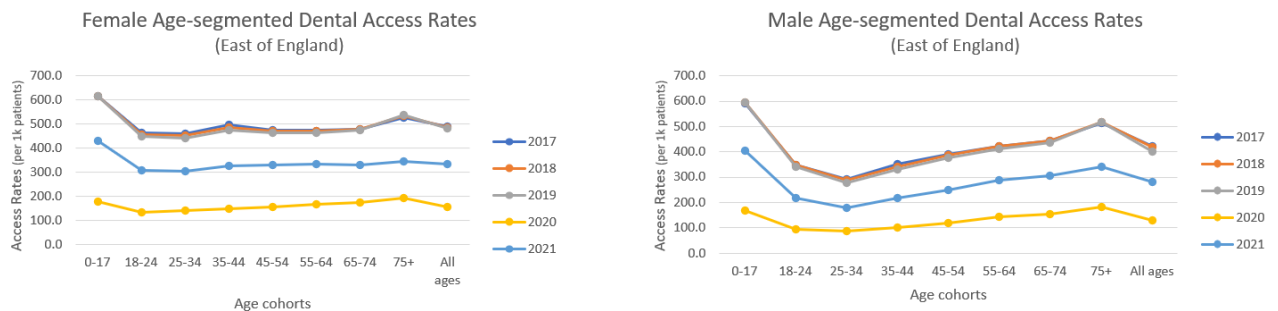


Figure 18: Dental access rates by age and sex for the East of England between 2017 and 2021. Data from the NHS General Dental Services statistics, NHS England and Improvement; NHS Business Services Authority

## Inequalities in accessing dental care

It is known from the NHS GP Patient Survey that the percentage of Suffolk residents being successful in obtaining NHS dental appointments is lower than the East of England regional and England national averages (Table 2). This difficulty in obtaining NHS dental appointments is reflected in the Healthwatch Suffolk briefing on dental services in Suffolk which reported that over 40% (211/503) of enquiries relating to NHS dental services made to Healthwatch between January and October 2021 were regarding lack of access<sup>20</sup>.

In addition to the issues in getting appointments highlighted by the NHS GP Patient Survey, physical access to sites where NHS dental services are provided may form part of the barrier to accessing dental care. Although NHS dental services are accessible from most of Suffolk by car within 30 minutes, with the exception predominantly of rural, coastal villages (Figure 19), access by public transport is much more difficult (Figure 20). Data from the SHAPE tool indicates that almost 100,000 Suffolk residents live in areas where NHS dental services are not accessible within 30 minutes of travel by public transport (Figure 20). These are mainly the more rural areas of Suffolk, but still represent approximately 13% of all Suffolk residents.

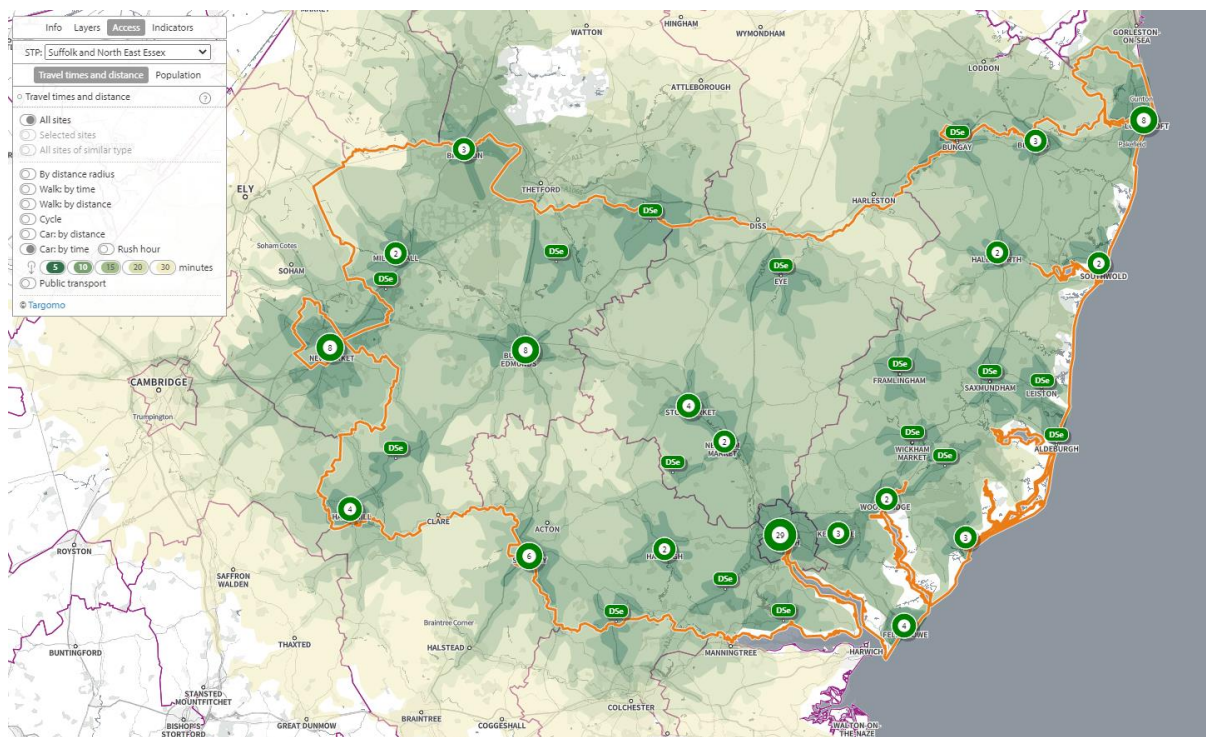


Figure 19: Access to NHS dental services for Suffolk residents by car (map accessed through SHAPE tool) - © Crown copyright and database rights 2022 Ordnance Survey 100016969 | parallel | Mapbox | OpenStreetView contributors

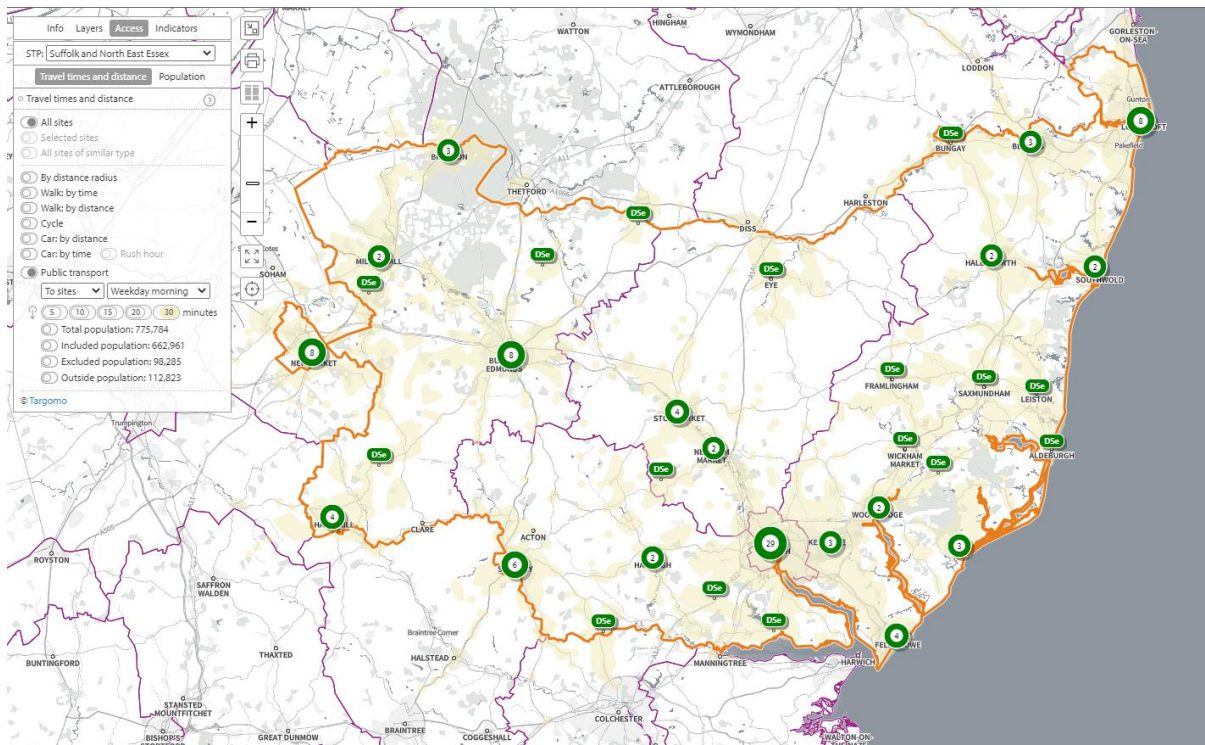


Figure 20: Access to NHS dental services for Suffolk residents – yellow shading denotes areas where services are within 30 minutes by public transport (map accessed through SHAPE tool) - © Crown copyright and database rights 2022 Ordnance Survey 100016969 | parallel | Mapbox | OpenStreetMap contributors

It is known that cost of treatment is another potential barrier to accessing dental care services, with data from the 2009 Adult Dental Health Survey showing that 26% of respondents in the East of England said that cost impact the type of treatment they chose to receive, with 18% saying that they delayed receiving treatment on the basis of cost<sup>21</sup>. The Healthwatch Suffolk report into dental services provided further evidence of these financial concerns at a more local level, as more than 10% of enquiries (53/501) in January to October 2021 mentioned issues around affordability<sup>20</sup>.

Data on NHS dental activity rates were provided to Suffolk County Council by Feema Francis, Consultant in Dental Public Health for the East of England, and are collated and owned by the NHS Business Services Authority. Data were provided to Lower layer Super Output Area (LSOA) level and by age band for the East of England, with data for those aged 0-17 being based on the number of patients seen in the 12 months to date and for those aged 18+ being based on the number of patients seen in the 24 months to date. These data were provided to April 2020 and April 2021, thereby showing some of the impact of the first year of the COVID-19 pandemic on NHS dental activity rates.

Dental activity rates do vary by age across the Suffolk population, with generally higher rates in older children (Figure 21). Activity rates do decrease in the 25-34 age band, being much lower than the 18-24 age band, and remain relatively flat as age increases to the 75+ age band (Figure 21). The age band with the lowest activity rates is the 0–2-year-old group, which is to be expected given that babies will be teething during this period (Figure 21). The impact of the first year of the COVID-19 pandemic is clear in these data, with activity rates decreasing for all age bands between April 2020 and April 2021. As the data for 0–17-year-olds is based on patients being seen in the 12 months to date, compared to 24 months for the 18+ age bands, the impact of COVID-19 is much more evident in the child data with activity rates significantly lower for April 2021 than April 2020 (Figure 21). As a result of the different dental activity rates by age (Figure 21), in order to account for the different age profiles of different groups, dental activity rates were age standardised for comparison

between different geographies. Analysis per 100,000 population standardised for age shows that to April 2020 and April 2021, East Suffolk LTLA had the statistically significantly highest dental activity rates among the Suffolk LTLAs, and that four of the Suffolk LTLAs (Babergh, East Suffolk, Ipswich and Mid Suffolk) had statistically significantly higher NHS dental activity rates than the East of England average (Figure 22). West Suffolk LTLA had statistically significantly lower NHS dental activity rates than the other LTLAs and the East of England average, although this may be due to West Suffolk being the area most likely to access private dentistry. There was a clear decrease in terms of dental activity for all areas between 2020 and 2021, but similar trends seen with East Suffolk having the highest activity rates and East Suffolk, Ipswich and Mid Suffolk all being statistically significantly higher than the East of England average (Figure 22).

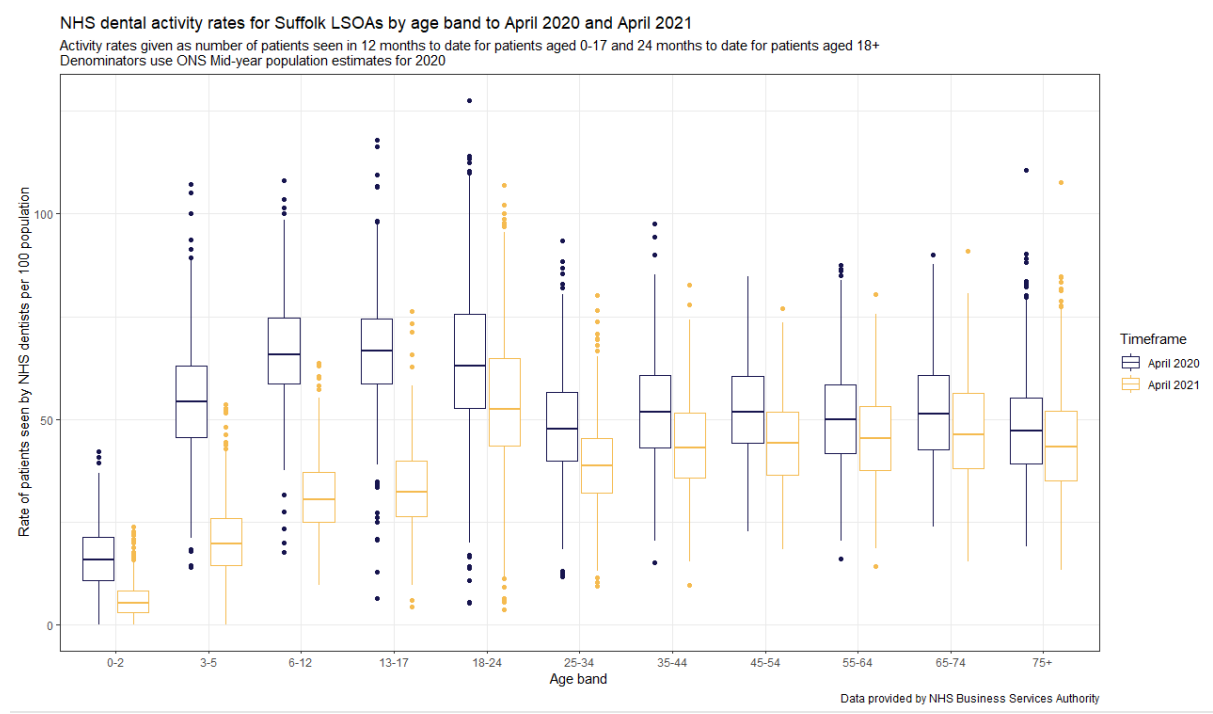


Figure 21: NHS dental activity rates for Suffolk population by age band to April 2020 and April 2021 – data provided by NHS Business Services Authority



NHS dental activity rates per 100,000 population to April 2020 and April 2021 for Suffolk lower tier local authorities and East of England region  
 Activity rates given as number of patients seen in 12 months to date for patients aged 0-17 and 24 months to date for patients aged 18+  
 Age standardised to 2013 European Standard Population - denominators use ONS Mid-year population estimates for 2020

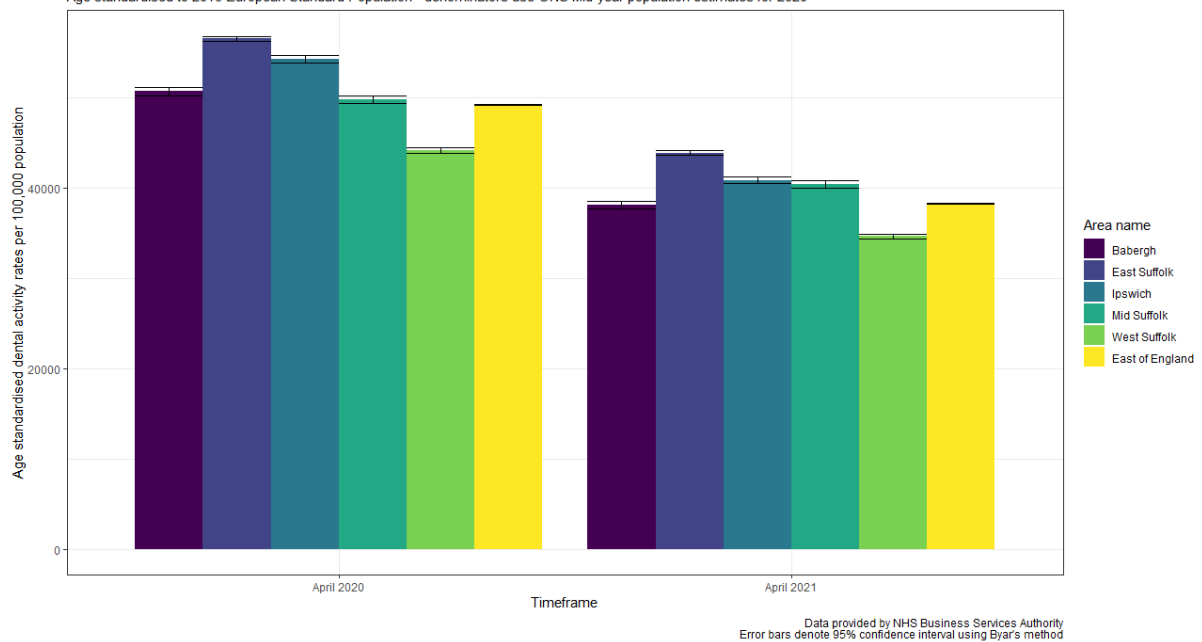


Figure 22: NHS dental activity rates per 100,000 population to April 2020 and April 2021 for Suffolk LTLAs compared to the East of England region – data provided by NHS Business Services Authority

The higher NHS activity rates for the East Suffolk LTLA appear to be being driven by the Waveney area of East Suffolk, with the highest age standardised activity rates by Middle layer Super Output Area (MSOA) for data to April 2020 and April 2021 coming in Waveney MSOAs. For both years, the five MSOAs with the highest NHS dental activity rates have been Worlingham & Barnby; Oulton Broad West; Oulton; Gunton East, Corton & Somerleyton and Beccles (Waveney 011, Waveney 006, Waveney 003, Waveney 001 and Waveney 010 respectively) although in different orders between the two years (Figure 23; Figure 24). The two lowest MSOAs were Bury St Edmunds Central (St Edmundsbury 006) and Ixworth, Honington & Barnham (St Edmundsbury 002), with Bury St Edmunds Central having the lowest NHS dental activity rate by Suffolk MSOA to both April 2020 and April 2021 (Figure 23; Figure 24). The difference between the highest and lowest MSOAs is substantial, with Worlingham & Barnby having an activity rate of 7,386 per 10,000 population to April 2020 compared to under half that in Bury St Edmunds Central at 3,263 per 10,000 population.

Northwest Suffolk and rural parts of Babergh consistently had some of the lowest NHS dental activity rates across Suffolk, with similar trends seen across both years (Figure 23; Figure 24). There are clear geographic clusters of MSOAs where activity rates are high or low that could potentially be targeted for health improvement work. Whilst there is no obvious trend between Index of Multiple Deprivation **rank** by LSOA and NHS dental activity rates (Figure 25), when looking at IMD quintile data (Figure 26: ), statistically significantly lower levels of dental activity rates are observed in quintile 3 (average deprivation levels). It is very difficult to interpret the relationship between NHS dental activity and deprivation in Suffolk in recent years, due both to the pandemic, and to the confounding factor of private dentistry

The lack of inclusion of private dental activity is a potential confounder to this, however, as people living in more affluent areas may have the means to access private dentistry at a higher level than those living in more deprived areas. These data are not accessible and form a key piece of missing information that limits understanding of the whole picture of dental activity in Suffolk. Added to this, and another factor that must be considered, is the drastic impact of COVID-19 upon dental services.

Despite data on private dentistry not being available at a local authority level to show the picture in Suffolk, data from Denplan ( a provider of private dental payment plans) at a national level indicate that 45% of the UK’s total 12,500 dental practices are wholly or mostly private, with almost 60% of the annual value of high street dentistry in 2019 (£5.2 billion of a total £8.5 billion) coming from the private sector<sup>22</sup>. This shift towards increased private practice appears to have been accelerated during the first two years of the COVID-19 pandemic, with approximately 3,000 dentists stopping providing NHS dental services between March 2020 and May 2022 and a total of 45% of high street dentists having reduced their NHS commitment, by an average of over 25%<sup>23</sup>. A total of 75% of dentists said that they were likely to reduce or further their NHS commitment in the year 2022/23, which will further impact NHS dental activity rates that were already decreased since the start of the COVID-19 pandemic<sup>23</sup>.

Funding structures for NHS dental activity have also changed in recent years, with funding provided by NHS England falling by 9% between 2010/11 and 2019/20, whereas income from patient charges increased by 17%<sup>24</sup>.

BBC reporting in August 2022 found that many people were struggling to find an NHS dentist, with nine out of ten NHS dental practices across the UK not accepting new adult patients for NHS treatment<sup>25</sup>. 70 Suffolk dental practices were contacted as part of this investigation, and none were currently taking on new adult NHS patients<sup>25</sup>.

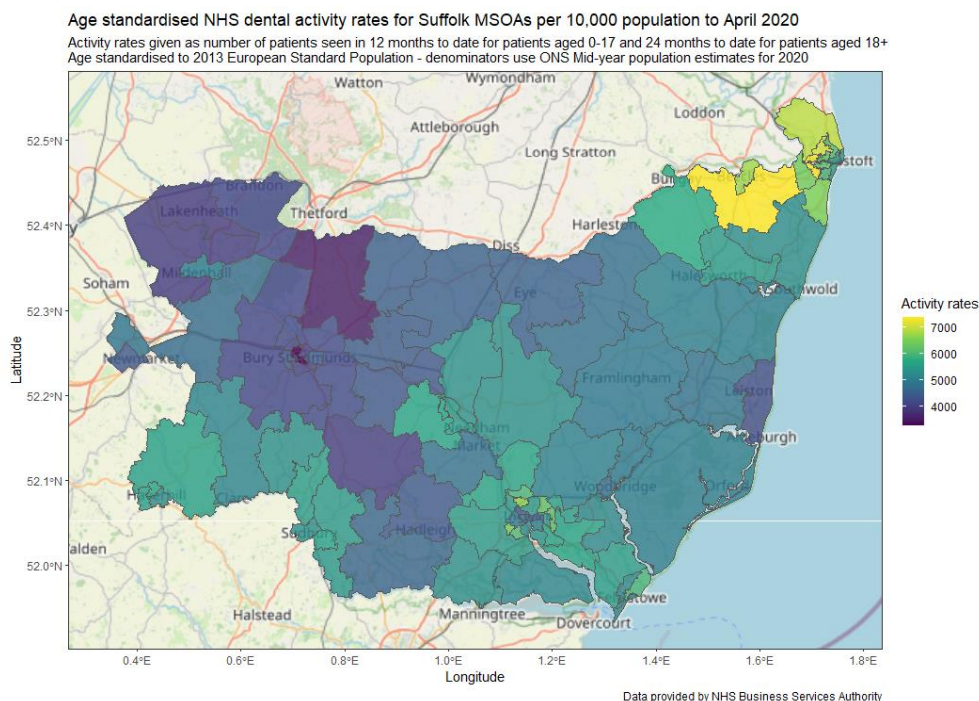


Figure 23: NHS dental activity rates for Suffolk MSOAs to April 2020 – data provided by NHS Business Services Authority



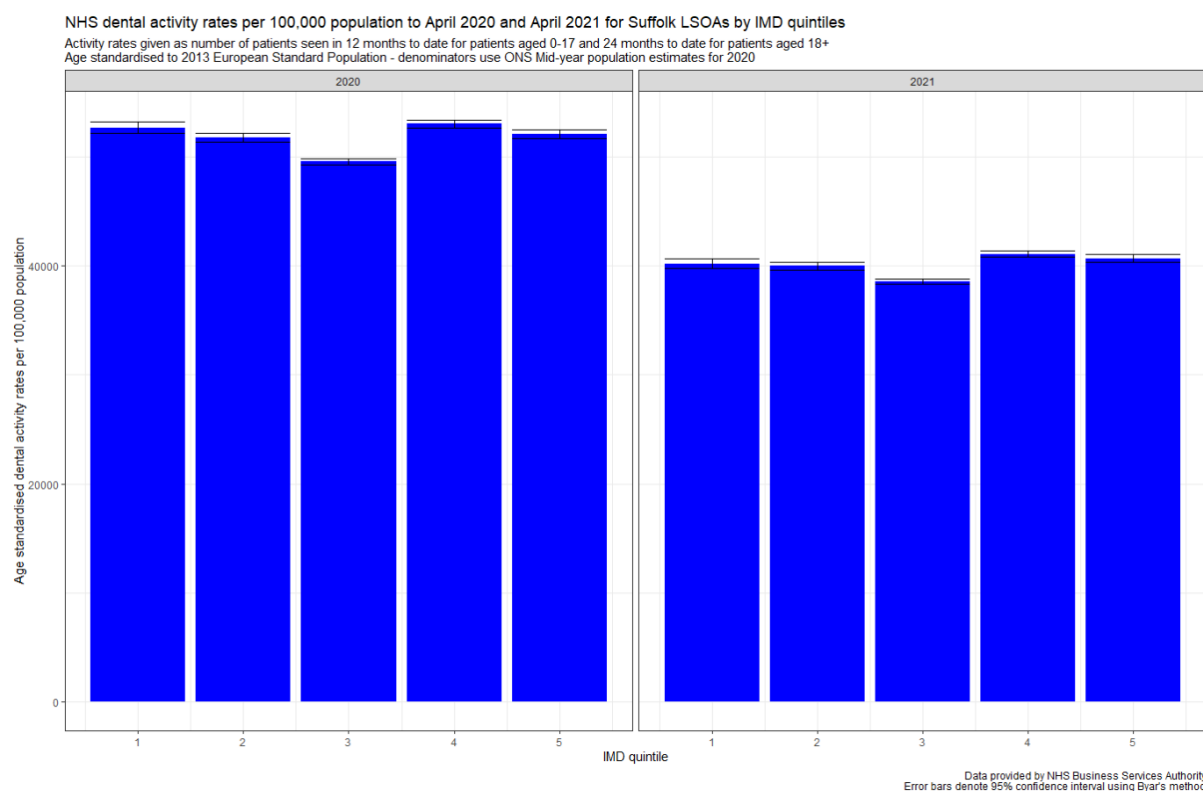


Figure 26: NHS dental activity rates for Suffolk population by Index of Multiple Deprivation quintile to April 2020 and April 2021 – data provided by NHS Business Services Authority

## Groups who may need extra support

As recognised by the Public Health England report into inequalities in oral health in England<sup>5</sup>, there is a paucity of data available on the oral health of a number of groups who may need extra support including homeless people, prisoners and travellers. Where evidence is available, these under-served groups often have poorer oral health than the general population<sup>5</sup>. Recommendations from this report included focussing on improving data on the oral health of these groups and removing the common barriers at an individual-, organisational- and policy-level that limit access to dental services, such as cost, poor service availability and services not meeting local needs<sup>5</sup>.

One group who may need extra support where some data are available for Suffolk is children in care. Internal data from Suffolk County Council regarding the oral health of children in care showed that of the 426 Suffolk children in care aged 5-18 at the end of March 2021, only 68% (290/426) were registered with a dentist and less than half the total number (164/426) had been seen by a dentist in the last year. Testimonies of lived experience for children in care highlighted difficulties in accessing NHS dental services for both primary and follow-up appointments. Although limited, there is some evidence that looked-after children elsewhere in the UK visit the dentist less frequently than the general child population, but those who do visit the dentist are more likely to need dental treatment<sup>26</sup>. Additionally, a cross-sectional study in East London identified that the prevalence of caries and dental injuries in looked-after children were higher than for those adolescents in families<sup>27</sup>.

## Wider issues impacting oral health

### Diet

The impact of diet on oral health is well-understood and well-established, with known associations between diet and oral cancers, oral infectious diseases and, most notably, dental caries<sup>28</sup>. Some of

the key dietary risk factors that impact oral health include eating 5 fruit and vegetables a day, high sugar diets, malnutrition (in particularly obesity in children and adults and older adults being underweight) and eating disorders (particularly bulimia).

### High sugar diet

Consuming a diet that is high in sugar, and in particular “free sugars” that are not in the cells of food, is known to be bad for oral health. Free sugars include: all added sugars in any form, all sugars naturally present in fruit and vegetable juices, purées, pastes and other produce where the structure has been broken down, and all sugars in non-dairy-based drinks<sup>29</sup>. NHS and WHO guidelines suggest that free sugars should not make up more than 5% of daily caloric intake<sup>30</sup>, however research shows that the average diet in the UK consists of more than double this, with approximately 12.4% of daily caloric intake coming from free sugars<sup>31</sup>.

Dietary free sugars are considered to be the most important risk factor for dental caries<sup>32</sup>, and although frequent toothbrushing can reduce the chances of decay in children compared to those who brush infrequently, the odds of dental caries are still more than double for children with the highest free sugar intake<sup>33</sup>. Measures have been implemented by the UK government to reduce high sugar diets, such as sugary drink levies, and there are signs from the National Diet and Nutrition Survey that the intake of sugars has continued to decrease since 2008 for both children and adults<sup>34</sup>.

### Eating 5 a day

Following the UK national government [Eatwell guidance](#), there is a recommendation that everyone eat at least five portions of fruit and non-starchy vegetables every day. The primary focus of this recommendation is for nutritional purposes, although there is some evidence that people whose diets are low in fresh fruit and vegetables have a moderately increased risk of cancers, although there is no evidence that diet is a risk factor for oral cancers specifically<sup>35</sup>. Although fruit juices are included in the five portions of fruit and vegetables, these carry higher proportions of free sugars and are therefore recommended to be limited to a total of 150ml per day<sup>36</sup>.

Based on data from the Sport England Active Lives Adult survey, 61% of Suffolk residents in 2019/20 met the recommended “5-a-day” on a “usual day” (Figure 27). This rate is statistically significantly higher than the East of England regional and England national rates, as Suffolk had been for each of the five annual surveys since 2015/16. For each of the constituent Suffolk LTLAs, East Suffolk had the highest “5-a-day” consumption rate in the East of England (64.8%), with West Suffolk the third highest (63.3%). Both Mid Suffolk (60.3%) and Babergh (60.0%) were statistically significantly higher than the regional and national rates, whereas Ipswich (51.9%) was statistically similar to regional and national averages, and statistically significantly lower than each of the other Suffolk LTLAs.

Area ▲▼	Recent Trend	Count ▲▼	Value ▲▼	95% Lower CI	95% Upper CI
England	-	-	55.4	55.2	55.7
East of England region	-	-	56.7	56.0	57.3
Suffolk	-	-	61.0	59.1	63.0
Hertfordshire	-	-	58.7	57.3	60.1
Central Bedfordshire	-	-	58.0	53.7	62.3
Norfolk	-	-	57.3	55.7	58.9
Cambridgeshire	-	-	56.6	54.8	58.4
Essex	-	-	55.9	54.6	57.2
Southend-on-Sea	-	-	54.6	50.2	58.9
Bedford	-	-	51.3	46.7	55.9
Thurrock	-	-	50.6	46.2	54.9
Luton	-	-	48.8	44.1	53.3
Peterborough	-	-	47.2	42.9	51.5

Source: Office for Health Improvement and Disparities (based on Active Lives Adult Survey; Sport England)

Figure 27: Proportion of the population meeting the recommended "5-a-day" consumption of fruit and vegetables on a "usual day" - data from the [Active Lives Adult Survey from Sport England 2019-20](#)

### Malnutrition (obesity in children and adults and underweight in older adults)

Obesity in children and poor oral health are known to have common risk factors, primarily from high consumption of sugar in the diet. Although there is an association between obesity and poor oral health at a population level, with prevalence of childhood obesity in English LTLAs having a positive correlation with prevalence and severity of dental caries, once deprivation is taken into account, this association is moderated <sup>37</sup>.

Compared to the England national averages, prevalence of obesity was statistically significantly lower in Suffolk children of both Reception and Year 6 age in 2019/20 (Figure 28; Figure 29). Suffolk also compared favourably to its CIPFA statistical nearest neighbours, having the 4<sup>th</sup> and 6<sup>th</sup> lowest obesity rates in Reception and Year 6 age children respectively (Figure 28; Figure 29). Data collection for the 2020/21 National Child Measurement Programme was impacted by the COVID-19 pandemic and therefore not all local authorities had a representative sample. Suffolk did reach the required threshold for representativeness for Reception aged children, however, and this data showed a very stark increase in the prevalence of obesity, from 8.6% in 2019/20 (Figure 28) to 14.4% in 2020/21. This reflects the general trend seen across other local authorities for both Reception and Year 6 aged children, with prevalence of obesity increasing dramatically during the first year of the COVID-19 pandemic.

Area ▲▼	Recent Trend	Neighbour Rank ▲▼	Count ▲▼	Value ▲▼		95% Lower CI	95% Upper CI
<b>England</b>	↑	-	39,404	9.9		9.8	10.0
Neighbours average	-	-	7,290	9.1*		8.9	9.3
Staffordshire	→	4	625	10.7*		9.9	11.5
Lincolnshire	↑	10	690	10.5		9.8	11.3
Gloucestershire	→	5	475	10.3*		9.4	11.2
Somerset	→	3	430	10.2		9.3	11.1
Cumbria	→	9	230	9.7*		8.5	10.8
Essex	↑	12	1,100	9.5*		9.0	10.1
Nottinghamshire	→	8	585	9.0*		8.3	9.7
Norfolk	→	2	520	9.0*		8.3	9.7
Derbyshire	→	7	415	8.9*		8.1	9.7
North Yorkshire	→	13	375	8.8		7.9	9.6
Warwickshire	→	6	345	8.7*		7.9	9.6
Suffolk	→	-	365	8.6*		7.8	9.5
Leicestershire	→	14	495	7.4		6.8	8.1
Devon	→	11	380	7.4		6.7	8.1
Cambridgeshire	→	15	260	7.0*		6.2	7.9
Worcestershire	-	1	-	*		-	-

Source: NHS Digital, National Child Measurement Programme

Figure 28: Prevalence of obesity (including severe obesity) in Reception aged children in Suffolk and its statistical UTLA neighbours (CIPFA Nearest Neighbours) in 2019-20

Area ▲▼	Recent Trend	Neighbour Rank ▲▼	Count ▲▼	Value ▲▼		95% Lower CI	95% Upper CI
<b>England</b>	↑	-	103,362	21.0		20.9	21.2
Neighbours average	-	-	17,010	18.9*		18.7	19.2
Lincolnshire	↑	10	1,490	22.2		21.2	23.2
Cumbria	→	9	690	20.2*		19.0	21.7
Warwickshire	↑	6	920	19.8		18.7	21.0
Derbyshire	→	7	1,005	19.7*		18.6	20.8
Norfolk	↑	2	1,600	19.7		18.8	20.5
Essex	↑	12	2,310	19.5		18.8	20.2
Gloucestershire	→	5	950	19.3		18.2	20.4
Nottinghamshire	↑	8	1,260	19.2		18.3	20.2
Staffordshire	→	4	1,210	19.2		18.2	20.1
Suffolk	→	-	1,375	18.7		17.9	19.6
North Yorkshire	↑	13	925	18.5		17.5	19.6
Leicestershire	→	14	1,160	17.6		16.7	18.5
Somerset	↑	3	710	17.2		16.1	18.5
Devon	→	11	825	15.5		14.6	16.5
Cambridgeshire	→	15	580	15.0*		13.9	16.1
Worcestershire	-	1	-	*		-	-

Source: NHS Digital, National Child Measurement Programme

Figure 29: Prevalence of obesity (including severe obesity) in Year 6 aged children in Suffolk and its statistical UTLA neighbours (CIPFA Nearest Neighbours) in 2019-20

Malnutrition is known to be associated with poor oral health in older adults (aged 60+), with research showing that malnourished older people are more likely to have fewer teeth, more hard and soft oral tissue conditions and worse perceptions of their own oral health<sup>38</sup>. Data are particularly sparse for rates of malnutrition nationally, much less at local authority level, with the Age UK Malnutrition Task Force report providing an estimate that one in ten older people in England are malnourished, however this is considered likely to be an underestimate<sup>39</sup>. The same task force also reported in 2021 that 1 in 4 older people said they or their household have been unable to eat healthy and nutritious food since the start of the COVID-19 pandemic<sup>39</sup>.

## Eating disorders

It is known that eating disorders can impact an individual's oral health in various ways, from limited nutritional uptake to effects of “purging” in people with bulimia nervosa, people with eating disorders are often at increased risk of poor oral health<sup>40</sup>. In particular with people with bulimia nervosa, dental erosion and caries are common issues faced as a result of acids in the stomach brought up through vomiting, however there are often salivary abnormalities, such as swelling, that can also occur as a result of eating disorders<sup>41,42</sup>. Eating disorders primarily impact younger people, with peak age at diagnosis in the UK being 15-19 for females and 10-14 for males<sup>43</sup>. At a national level, incidence is usually relatively stable across time, with approximately 35 diagnosed eating disorders per 100,000 population (age-standardised) per year, although there is a paucity of granular data at lower geographies and diagnoses are considered to be an underestimate of the true scale of the issue<sup>43</sup>. Estimates from Fingertips show that, in 2013, there were approximately 10,000 young people in Suffolk aged 16-24 who had potential eating disorders.

## Bruxism (grinding of the teeth)

Bruxism, a disorder characterised by grinding and clenching of the teeth, can cause teeth to wear and cause issues with soft tissue in the mouth, leading to poor oral health and subsequent further health problems<sup>44</sup>. Estimates on prevalence of bruxism in the general population vary widely from 8% to 31.4%<sup>44</sup>, with chronic stress and mental health conditions being key contributing factors to teeth grinding<sup>45</sup>. The Adult Dental Health Survey of 2009 showed that 70% of adults in the East of England showed some signs of dental wear, of which some may be attributed to bruxism<sup>6</sup>.

## Smoking

It is widely known that smoking is bad for an individual's health, and in particular their oral health<sup>46</sup>. Smoking has been repeatedly shown to cause poor oral health, such as periodontitis and oral cancers<sup>3,47,48</sup>.

Smoking prevalence in adults has generally been decreasing in England nationally and the East of England region over recent years (Figure 30). In the most recently available data, however, there has been a plateau, with 2020/21 being the first year since before 2013/14 where the point estimate for the East of England has seen an increase on the previous year (Figure 30). This matches the national picture, with a slight, but not statistically significant increase in smoking prevalence in both England and Great Britain<sup>49</sup> (Figure 30). It has been hypothesised that this increase may have been associated with attempts by some people to relieve COVID-19 pandemic-related stress, but at the same time, there were also increased smoking cessation activities undertaken during the first COVID-19 lockdown<sup>50</sup>.

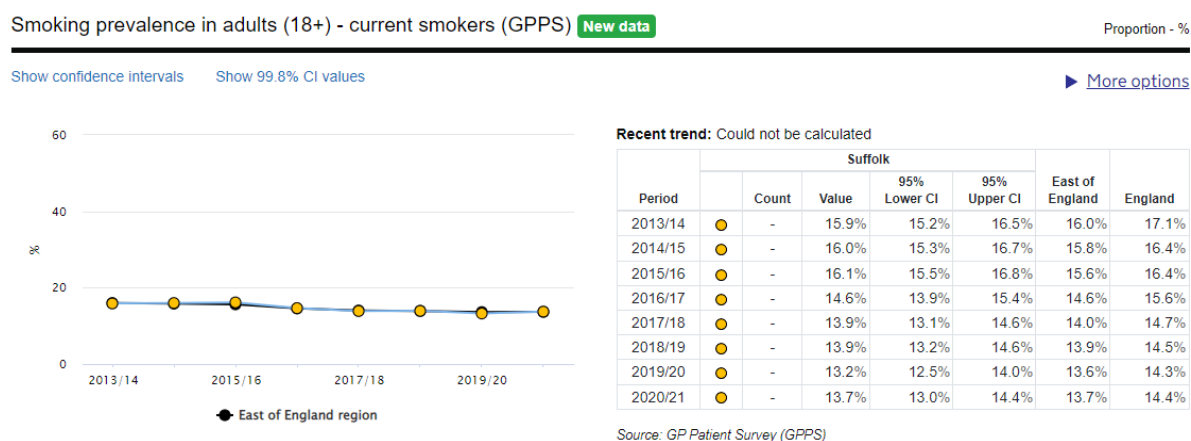


Figure 30: Smoking prevalence in adults (18+) in Suffolk compared to the East of England region - source: [GP Patient Survey](#), from [OHID Fingertips](#)



Smoking prevalence in Suffolk generally matched the prevalence in the East of England between 2013/14 and 2020/21 (Figure 30), which tracks with the mortality rate from oral cancers for Suffolk, as these were not statistically significantly different from the East of England regional and England national averages between 2013-15 and 2017-19, the most recently available data (Figure 9). Smoking prevalence is known to be much higher for adults working in routine and manual occupations than in other professions. For the most recently available data, the odds of someone in Suffolk smoking if they have a routine and manual occupation were more than double those in other professions, in line with England national and East of England regional averages (Figure 31). Similarly, the prevalence of dental caries, tooth loss and periodontal conditions were all higher for people with routine and manual occupations compared to intermediate or managerial and professional occupations, according to the UK adult dental health survey in 2009 <sup>5</sup>.

Area ▲▼	Recent Trend	Count ▲▼	Value ▲▼		95% Lower CI	95% Upper CI
England	-	-	2.1	H	2.0	2.3
East of England region	-	-	2.2		1.9	2.6
Southend-on-Sea	-	-	4.5		2.7	7.6
Luton	-	-	3.3		2.0	5.7
Cambridgeshire	-	-	3.2		1.9	5.5
Hertfordshire	-	-	2.7		1.7	4.3
Peterborough	-	-	2.4		1.4	4.1
Suffolk	-	-	2.3		1.5	3.6
Central Bedfordshire	-	-	1.9		0.9	3.7
Essex	-	-	1.8		1.2	2.6
Norfolk	-	-	1.7		1.1	2.7
Thurrock	-	-	0.8		0.4	1.5
Bedford	-	-	*		-	-

Source: Office of National Statistics (ONS)

Figure 31: Odds of current smoking (self-reported) among adults aged 18-64 with a routine and manual occupation compared to other professions for UTLAs in the East of England in 2020 - source: [Office for National Statistics 2020 Annual Population Survey from OHID Fingertips](#)

## Breastfeeding

Evidence-based guidelines from both the World Health Organisation (WHO) and the UK government encourage breastfeeding for infants under 12 months, with large-scale meta-analyses indicating that breastfeeding provides protection against some childhood infections and malocclusion of primary teeth <sup>51,52</sup>. Additionally, there is evidence that breastfeeding up to 12 months has an association with reduced dental caries, however if breastfeeding continues much longer beyond this age, then the association changes and becomes linked with increased dental caries in infants <sup>51,52</sup>.

Recommendations from the UK government are that children are exclusively breastfed until six months old, however it is known that actual rates of breastfeeding are far lower than this, with 34% of children in England in 2010 being breastfed at six months and approximately 1% were exclusively breastfed at six months <sup>53</sup>. In the UK generally, rates of breastfeeding were higher in 2010 than in 2005, with only 25% of children aged six months being breastfed in 2005, compared to 34% in 2010 <sup>53</sup>. In 2020/21, Suffolk's rates for breastfeeding at 6-8 weeks after birth were 49.6%, according to the PHE interim reporting of health visiting metrics on OHID Fingertips (Figure 32). This was statistically significantly higher than the England national rates but still among the lowest in the East of England region by Upper Tier Local Authority, where data were available (Figure 32). Additionally, according to the Maternity Services Dataset, the proportion of baby's first feeds being breastmilk in Suffolk was statistically significantly lower than the national and regional averages in 2018/19 (Figure 33).

Area ▲▼	Value ▲▼		Lower CI	Upper CI
<b>England</b>	47.6*		47.5	47.7
East of England region	*		-	-
Luton	63.3		61.6	65.0
Bedford	56.9		54.7	59.0
Central Bedfordshire	52.3		50.5	54.0
Southend-on-Sea	50.3		48.0	52.6
Suffolk	49.6		48.3	50.8
Essex	49.4		48.6	50.3
Thurrock	48.4		46.3	50.4
Cambridgeshire	*		-	-
Hertfordshire	*		-	-
Norfolk	*		-	-
Peterborough	*		-	-

Figure 32: Prevalence of breastfeeding at 6-8 weeks after birth in 2020/21 - source: [OHID Fingertips from PHE interim reporting of health visiting](#)

Area ▲▼	Value ▲▼		Lower CI	Upper CI
<b>England</b>	67.4		67.2	67.5
East of England region	70.0		69.3	70.7
Luton	75.6		72.5	78.5
Central Bedfordshire	74.4		71.4	77.5
Norfolk	74.3		72.4	76.3
Cambridgeshire	74.0		71.5	76.4
Bedford	73.6		69.9	77.3
Southend-on-Sea	73.0		69.2	76.6
Hertfordshire	72.2		70.8	73.6
Peterborough	69.9		66.6	73.2
Suffolk	65.0		62.8	67.1
Essex	64.6		63.3	65.9
Thurrock	59.1		55.7	62.5

Figure 33: Percentage of babies whose first feed was breastmilk in 2018/19 – source: [OHID Fingertips from the Maternity Services Dataset](#)

## Fluoridation of water

Fluoride is a naturally occurring mineral that is found in varying concentrations in water and some foods. Increased concentrations of this mineral in drinking water have been shown to be associated with lower prevalence of dental caries and lower prevalence of caries of high severity in young children<sup>54</sup>. As a result of this, in areas with lower naturally occurring fluoride concentrations in drinking water, the UK government supplements this with the provision of additional fluoride. In England, approximately 10% of the population receive drinking water that is served by a fluoridation scheme<sup>54</sup>.

The East of England, as a region, has naturally quite high concentrations of fluoride in drinking water, with most areas of Suffolk (Babergh, Ipswich and Mid Suffolk in particular) having mean fluoride

concentrations between 0.4 - 0.7 mg/l in 2015, the most recent available data (Figure 34) <sup>54</sup>. Although the raw data used to create Figure 34 are not available, it appears that the lowest levels of naturally occurring fluoride in Suffolk drinking water are in the North West of the county, around Mildenhall and Lakenheath, and around Lowestoft and Corton, in the North East <sup>54</sup>.

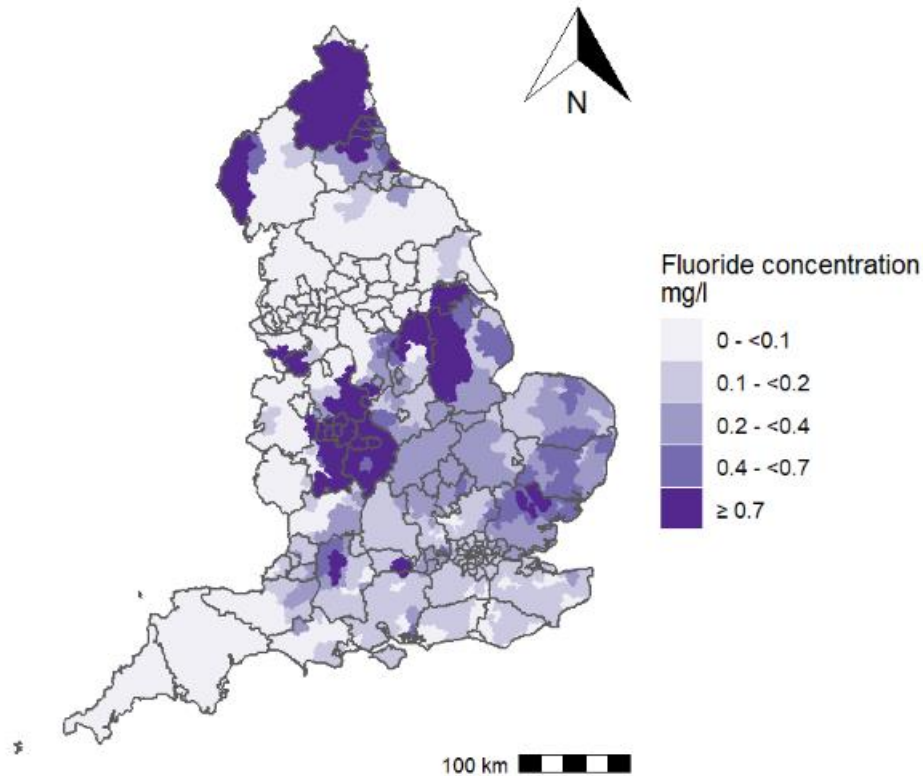


Figure 34: Mean fluoride concentration in LSOAs in England in 2015 (most recent available data), with 2020 UTLA boundaries <sup>54</sup>

As a result of these naturally occurring higher fluoride levels, no Suffolk LSOAs are in a fluoridation scheme (Figure 35). Areas that are in fluoridation schemes, such as the West Midlands, South Yorkshire, parts of the North East and Cumbria (Figure 35) have substantially higher drinking water fluoride concentrations than their neighbouring areas outside of the schemes (Figure 34).

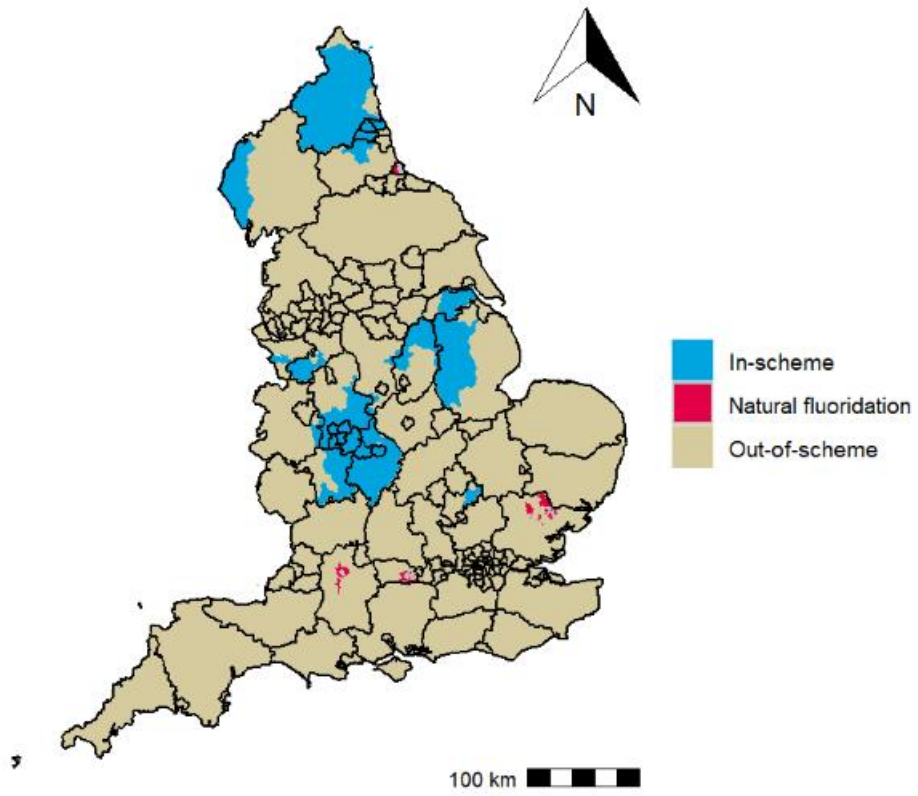


Figure 35: LSOAs with a fluoridation scheme or with fluoride concentrations naturally above 0.7mg/l in England in 2015

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