Oral Health and Epidemiology Intelligence Support Document

Public Health Intelligence Team

East Riding of Yorkshire Council

East Riding of Yorkshire Joint Strategic Needs Assessment (JSNA).

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1. Introduction:

1.1 National Context

Since the launch of The Health and Social Care Act (2012), the responsibility for improvement of oral and dental health has been with local authorities who are required to provide or commission oral health surveys. These surveys are conducted in conjunction with the Public Health England (PHE) Dental Public Health Intelligence Programme (formally known as the National Dental Epidemiology Programme).

Oral health is an important component of health and wellbeing which is often overlooked. Whilst there have been improvements in the oral health of children in England, there remains significant inequalities in oral health across the country. Oral health is defined as the 'standard of health of the oral and related tissues which enables an individual to eat, speak and socialise without active disease, discomfort or embarrassment, and which contributes to general wellbeing.' Oral health is integral to general health and should not be considered in isolation nor deprioritised.

Oral disease can have profound effects on the general wellbeing and quality of life of individuals. Many oral diseases, alongside many general health conditions, have common risk factors such as smoking, alcohol misuse and poor diet. Dental and periodontal (gum) diseases are preventable through good self-care (oral hygiene and diet) and efficient dental services being available to the whole population. Caries and periodontal diseases are chronic conditions which are preventable, largely irreversible and cumulative in nature. Social inequities contribute to the prevalence of poor oral health.

Tooth decay is the most common oral disease affecting children and young people in England, yet it is largely preventable. While children's oral health has improved over the past few decades, almost a quarter (23.3%) of five-year-olds still had tooth decay in 2016/17[1]. Gum (periodontal) disease is a common condition where the gums may become swollen, sore or infected, although many patients are symptomless and unaware that they have a problem. Most adults in the UK experience gum disease at some point, with most people experiencing it at least once. Gum disease is much less common in children. Like tooth decay, periodontal disease can lead to tooth loss. Periodontal conditions are preventable with good oral hygiene and stopping smoking.

Poor oral health impacts children and families' health and wellbeing. It is also vitally important to maintain good oral health throughout the life course. Early intervention, development of good habits and understanding of the benefits of good oral health in children is key to minimising dental and periodontal conditions in later life. Older adults can present with wide-ranging clinical needs and levels of wellbeing, particularly as other physiological conditions take precedent over dental hygiene. Additionally, functional limitation decreases the ability for the older population's self-care.

Dental treatment is a significant cost to NHS England, with the institution spending £3.4 billion per year on dental care (with an estimated additional £2.3 billion on private dental care)[2].

1.2 East Riding of Yorkshire

The National Dental Epidemiology Programme for England, Oral Health Survey of Five Year Old Children completed in 2015 demonstrated 24.7% of five-year-olds surveyed in England had experienced dental decay whereas in the East Riding of Yorkshire (ERY) it was 23.1% of five-year-olds surveyed. The average number of teeth decayed, missing or filled for the five-year-old population surveyed in England was 3.4 whereas ERY had a lower average of 2.6. Experience of dental disease is not evenly distributed in the population. Prevalence of dental caries is strongly correlated with deprivation, so there will be areas of ERY where children experience considerably higher levels of dental disease.

Continued support and promotion is required to continue improvements in child dental health in ERY including education of good hygiene practice (i.e. brushing regularly with fluoride toothpaste).

2. Key points regarding service focus suggestions for dental health in ERY:

Commissioners wish to highlight the following key local issues which are evident from an assessment of dental health needs:

- The consideration of the rurality of the ERY area, its geography and transport links, and the impact of these on access to services (especially for younger people and the elderly).
- The ERY local authority has levels of decay that are lower than the average for England.
- The prevalence of decay that is related to long term bottle use is lower than the national level.
- The small sample size of survey responses to the Public Health National Dental Survey for 5-year olds means it is not possible to provide information at a ward level. However, a general overview of the county can be provided.
- Using the literature and resources from Public Health England, the link between deprivation and oral health has been examined.
- The link between deprivation and oral health can be used to target commissioning services, particularly for targeting school-based interventions.
- Support and training for carers of older people or individuals with learning difficulties is advised to prevent oral health neglect.

3. Overview of the East Riding of Yorkshire:

3.1 ERY Population:

The ONS 2018 mid-year estimate for the total population of ERY is 339,614 and is divided into 5-year age bands in the chart below (chart 3.1.1). ERY is clearly shown to have a higher proportion of residents aged 45 to 84 years, than both regional and England averages. Residents' aged-65-years and over make up 25% (87,485) of the ERY population, a significantly higher proportion than the England average (18%). There are estimated to be 34,998 ERY in the 15-25-year-age group, which makes up 10% of the total population; this is a significantly lower proportion than the England average (13%). Children and young people aged 0-19-years have an estimated population of 69,786 (20%) which is significantly lower than the England proportion (23.7%).

Chart 3.1.1 ERY population, 2018, split into 5 year age bands. Source: ONS.

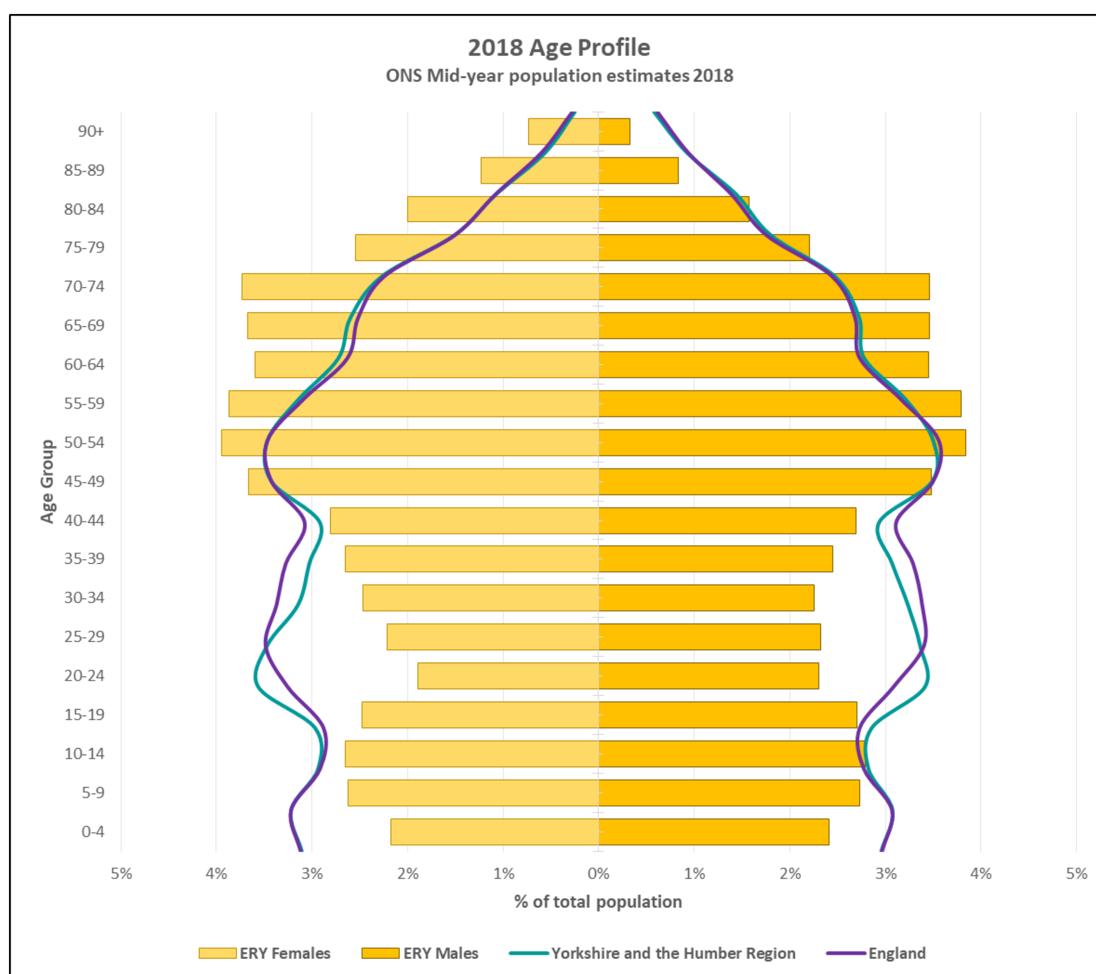


Table 3.1.2 shows the population projections estimated for the ERY (ONS, 2016) for the approximate duration of a 5+1+1 year contracting, starting in 2020. The year 2030 has also been included. Between 2020 and 2027, the overall population is projected to increase by 1%. During the same time period, 0-9-year-old population is projected to decrease by 5%. Chart 3.1.3 shows the estimated number of ERY residents aged 0-19 years from 2016-2026.

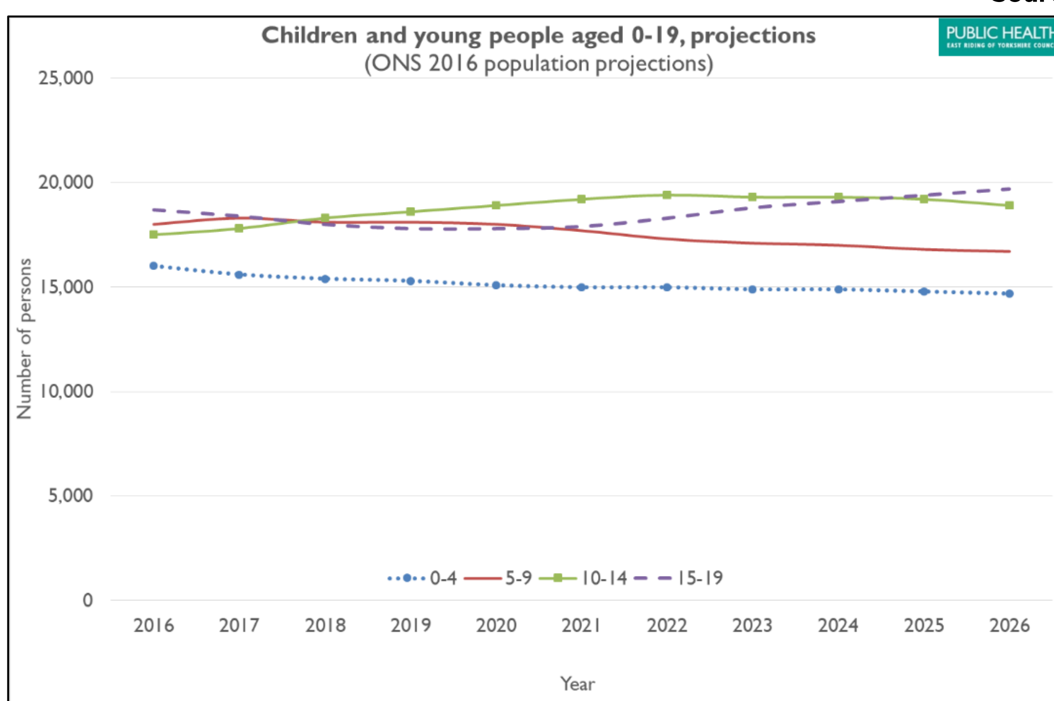
Table 3.1.2 ONS 2016 based population projections for ERY by year.

Source: ONS.

All Persons	**2020**	**2025**	**2026**	**2027**	**2030**
0-4	15100	14800	14700	14600	14400
5-9	18000	16800	16700	16700	16400
10-14	18900	19200	18900	18500	18000
15-19	17800	19400	19700	20000	19700
20-64	180500	175600	174400	173300	169600
65+	90100	98300	100100	102000	108200

Chart 3.1.3 shows the estimated number of ERY residents aged 0-19 years from 2016-2026.

Source: ONS.



According to the 2011 Census, 96.2% of the ERY population is White: British. This is higher than the regional average of 93.5% and the England average of 79.8%. The largest minority ethnic group is "White: Other" (5435 people) which represents 1.6% of the ERY population.

3.2 Rurality and major settlements:

ERY local authority covers approximately 930 square miles, making it one of the largest unitary authorities in the country. The ER is a predominantly rural area with over half of its population living in dispersed rural communities, which is likely to have a significant impact on some resident's ability to access services. The map below (figure 3.2.1) displays the rural/urban classification of ER lower super output areas (LSOAs). In total, there are 333 settlements, ranging from large towns to small, isolated hamlets and farmsteads. The largest town in

ERY is Bridlington, with other major settlements such as Beverley, Goole and the Haltemprice area to the west of Hull (which includes Cottingham, Hessle, Anlaby, Willerby and Kirk Ella) (figure 3.2.2).

Figure 3.2.1 Rural/urban classification for ERY LSOAs as of 2011. Source: Data Observatory

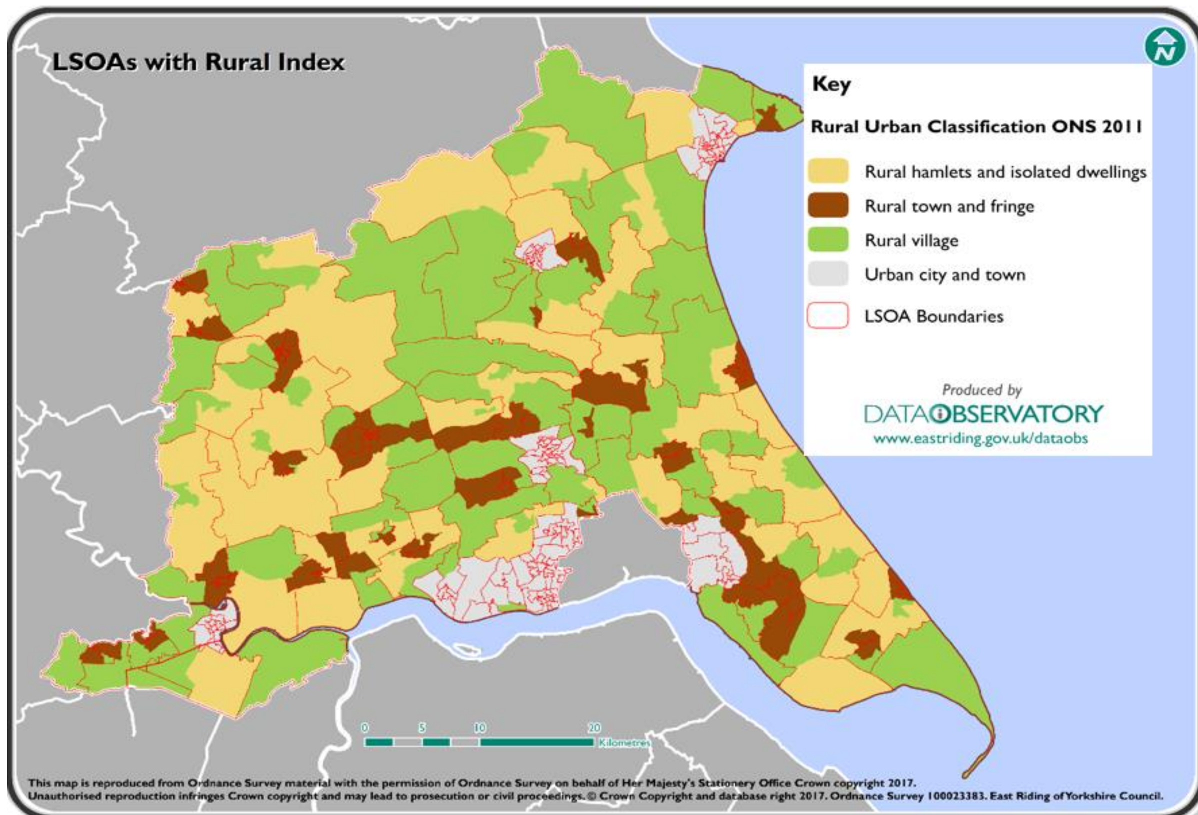
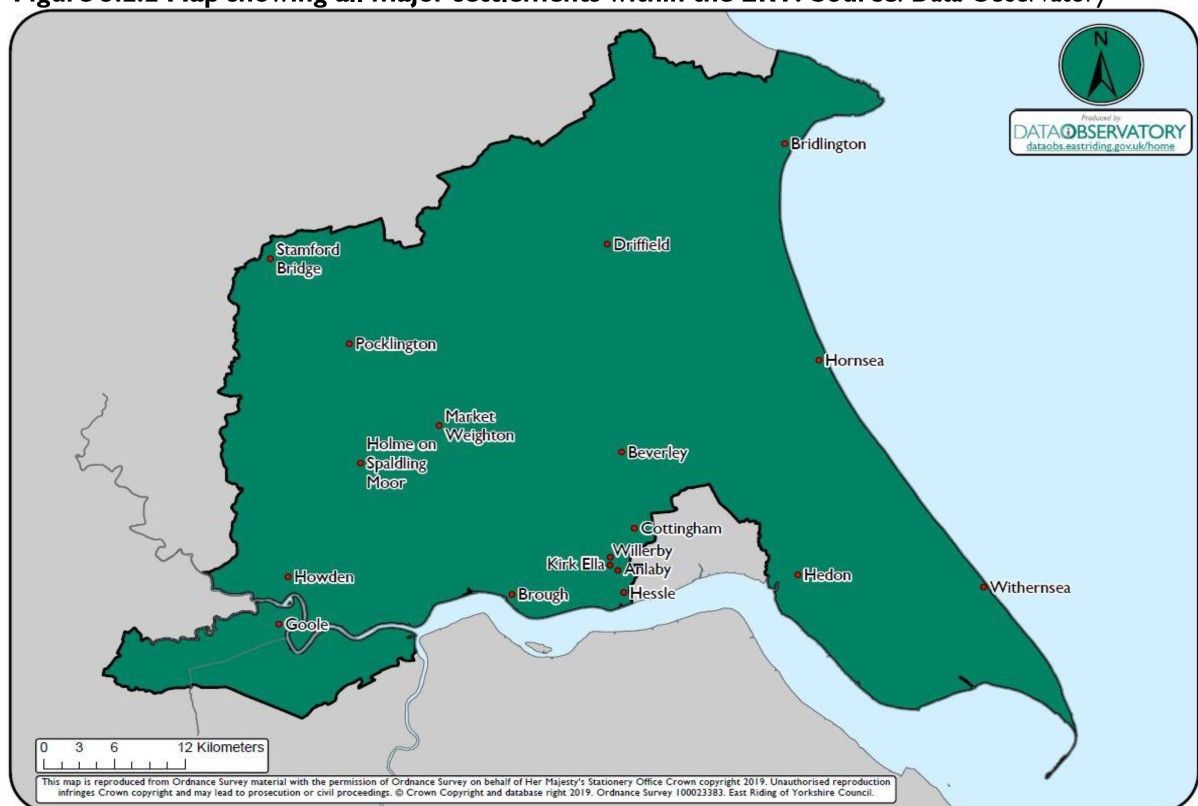


Figure 3.2.2 Map showing all major settlements within the ERY. Source: Data Observatory



3.3 Public transport information and travel time to health care:

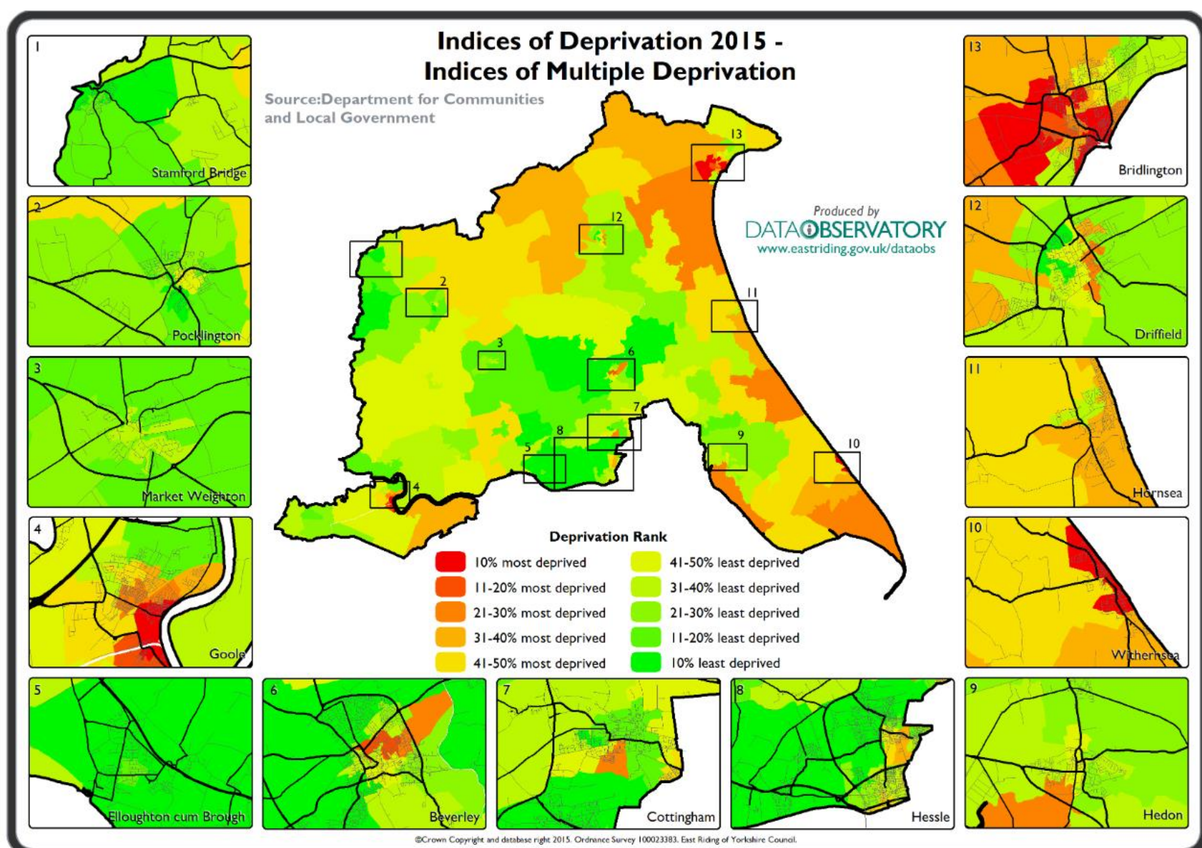
Due to the rurality and dispersed nature of the ERY it means many residents will potentially have to travel a considerable distance to dental services. If personal transportation is not accessible, then residents will have to utilise public transport. Information about public transport routes and times can be accessed using the two links below:

- Buses: East Riding of Yorkshire Motor Services (https://www.eyms.co.uk)
- Trains: National Rail Enquiries (https://www.nationalrail.co.uk)

3.4 Deprivation:

Overall, the ERY is generally considered to be an affluent area, however, there are substantial variations in deprivation levels within the local authority area. The most deprived communities of the ERY can be found in Bridlington, Goole and South East Holderness. Figure 3.4.1 shows the ERY divided into indices of multiple deprivation (IMD), where the most deprived areas are coloured red and the least deprived areas coloured green.

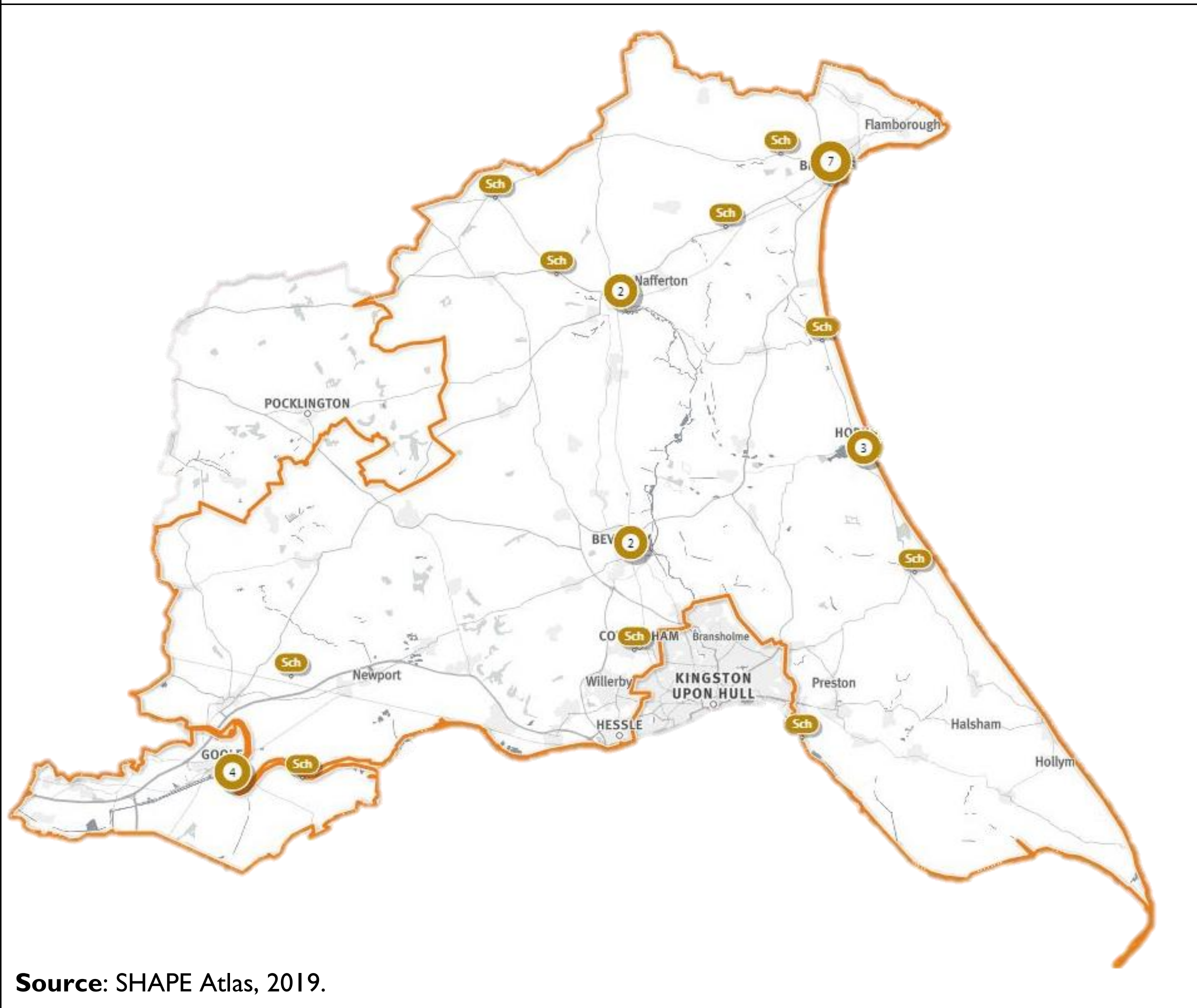
Figure 3.4.1 Indices of multiple deprivation (IMD 2015), ERY. **Source**: ERY Data Observatory.



3.5 Schools:

School socioeconomic environment is recognised to be directly associated with oral health outcomes in children and later life[3]. Studying the socioeconomic situation of schools within the county can provide recommendations for areas to focus child oral health interventions.

Figure 3.5.1 Map of the East Riding showing the location of the schools in the most deprived local quintile in the East Riding, identified by post code and local IMD quintile (2015). These schools are primary, secondary and special schools. Seven of the 29 schools are within the Bridlington area.



Source: SHAPE Atlas, 2019.

Appendix 1 shows a breakdown of local schools by IMD quintiles, free school meal provisions, pupil premium provisions and the percentage of children on ERY school rolls from Hull.

Appendix 2 shows the number of schools in each IMD quintile.

Table 3.5.2 Count of schools within ERY within each local IMD quintile by ward. Bridlington Central and Old Town has the highest number of schools within the most deprived areas.

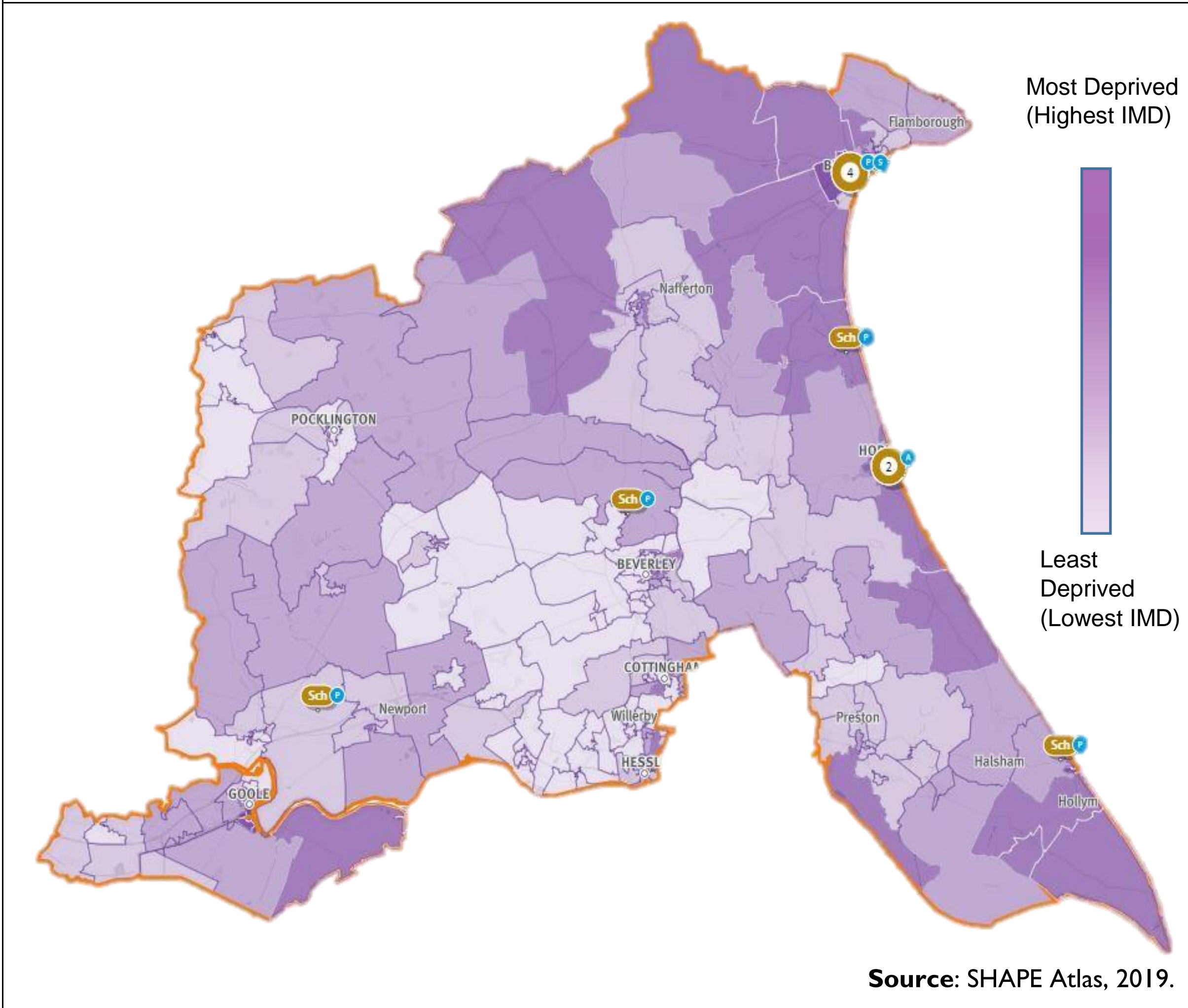
	Local IMD quintile (IMD 2015)				
Ward	**1 Most Deprived**	**2**	**3**	**4**	**5 Least Deprived**
Bridlington Central and Old Town	6		1		
Driffield and Rural	4	2		1	
North Holderness	3	1	1		
Bridlington South	2	1	1		
East Wolds and Coastal	2	4	1	2	
Goole South	2	2			
Snaith, Airmyn, Rawcliffe and Marshland	2	3	1	3	
South East Holderness	2	4			
Cottingham South	1	1		1	
Goole North	1		2	1	
Mid Holderness	1	1	2	4	
Minster and Woodmansey	1		2	1	1
South West Holderness	1	2	2	2	
St Mary's	1		3		3
Beverley Rural		3		2	4
Bridlington North		1	2		
Cottingham North			2	1	
Dale			1	2	3
Hessle			3	1	
Howden			1	3	
Howdenshire		1	4	1	
Pocklington Provincial			1	5	2
South Hunsley					5
Tranby		1		2	
Willerby and Kirk Ella				1	3
Wolds Weighton		4	3	3	
Grand Total	**29**	**31**	**33**	**36**	**21**

Identifying school deprivation can be used for commissioning purposes to design and target oral health interventions to the schools with children at the highest risk of poor oral health and dental outcomes.

Pupil premium is an additional funding source for schools in England designed to help disadvantaged pupils of all abilities perform better, and close the gap between them and their peers. The funding is available to schools maintained by local authorities, including schools for children with special educational needs or disabilities, and pupil referral units. Academies and free schools, voluntary-sector alternative provision academies and non-maintained special schools are also available.

Pupil premium can be used to identify areas where poor dental health outcomes may be a greater risk as disadvantaged children can be more likely to have poorer oral health outcomes. Pupil premium is provided to children who are from low-income families and eligible for free-school meals, under the care of the local authority or having left local authority care as a result of adoption or special guardianship. Map 3.5.2 shows the location of the top 10 schools within the ERY which receive the most pupil premium. Table 3.5.3 details the proportion of pupils who receive pupil premium within these schools.

Figure 3.5.2 Map showing the location of the ten schools with the highest proportions of pupil premium. The shading shows the levels of deprivation. Four schools are within Bridlington, two schools are in Hornsea, one school is in Withernsea, one in Eastrington, one in Skipsea and one in Leconfield.



Source: SHAPE Atlas, 2019.

Table 3.5.3 The top ten schools with the highest pupil premium funding. Table detailing the proportion of school pupils within institutions with the highest proportions of pupil premiums for the school.					
School Name	**Type of school (Primary, Secondary, Special School)**	**Ward Location**	**Number of children on roll**	**Number of pupil premiums**	**Percentage pupil premium (%)**
The Hub	Pupil Referral Unit	North Holderness	55	67	121.8%
Quay Academy	Primary	Bridlington South	368	201	54.6%
New Pasture Lane C.P School	Primary	Bridlington Central and Old Town	249	130	52.2%
Hilderthorpe	Primary	Bridlington South	372	190	51.1%
Leconfield	Primary	Beverley Rural	130	63	48.5%
Hornsea Burton	Primary	North Holderness	64	30	46.9%
Skipsea County	Primary	East Wolds and Coastal	50	23	46%
Withernsea	Primary	South East Holderness	562	257	45.7%
Bridlington School	Secondary	Bridlington South	989	428	43.3%
Easington CE	Primary	Howdenshire	37	16	43.2%
Source: Children's, Families and Schools Team, ERY. 2019.					

Income can have an adverse impact on children and their family members. Children from lower income families (and therefore eligible for free school meals) are more likely to have oral disease than other children of the same age[4].

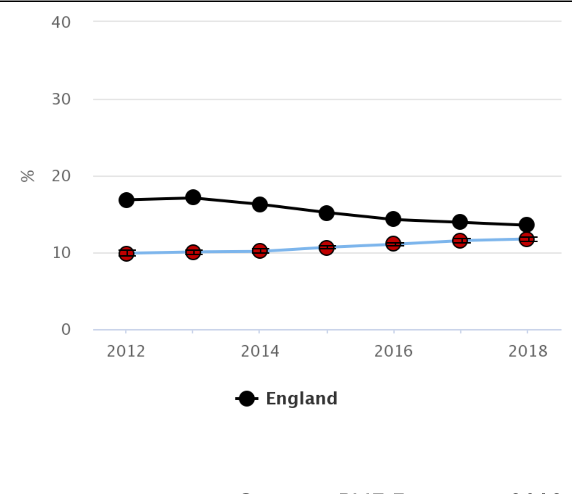
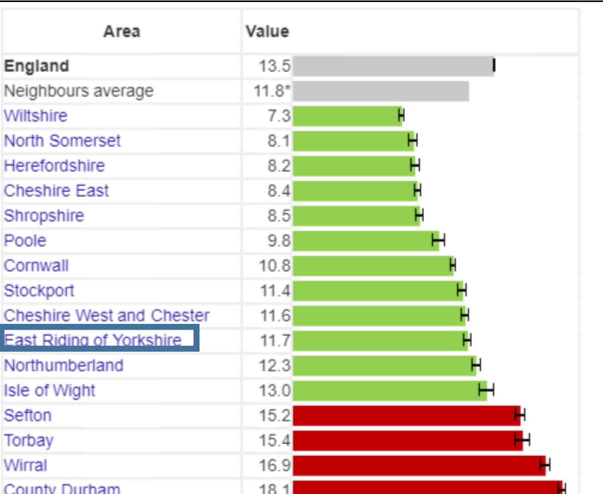
Figure 3.5.4 Free school meals uptake among all pupils. ERY has a significantly lower proportion of children claiming free school meals than are eligible. The number of children receiving free school meals is increasing in ERY.	**Figure 3.5.5 Free school meals uptake among all pupils in ERY compared to CIPFA neighbours**. ERY has the seventh highest proportion of school age children claiming free school meals out of all CIPFA neighbours (2018).
 **Source**: PHE Fingertips, 2019. [https://fingertips.phe.org.uk/search/free%20school%20dinners#page/4/gid/1/pat/6/par/E12000003/ati/102/are/E06000011/iid/90922/age/217/sex/4]	 **Source**: PHE Fingertips, 2019. [https://fingertips.phe.org.uk/search/free%20school%20dinners#page/3/gid/1/pat/6/par/E12000003/ati/102/are/E06000011/iid/90922/age/217/sex/4/nn/nn-1-E06000011]

Table 3.5.6 The top ten schools with the highest number of children eligible free school meals.

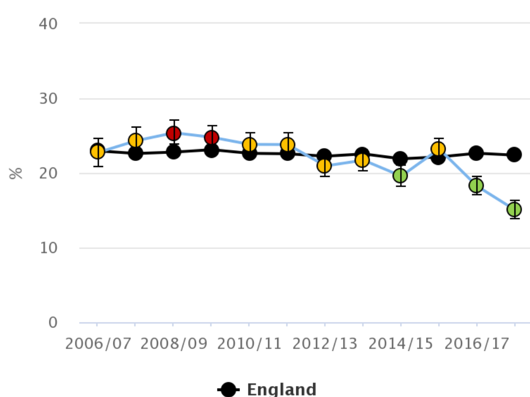
School Name	Type of school (Primary, Secondary, Special School)	Ward Location	No. children on roll	No. eligible for free school meals	Percentage (%)
The Hub School	Pupil Referral Unit	North Holderness	55	25	45.5%
New Pasture Lane	Primary	Bridlington Central & Old Town	249	107	43.0%
Skipsea County	Primary	East Wolds & Coastal	50	21	42.0%
Hilderthorpe	Primary	Bridlington South	372	151	40.6%
Hornsea Burton	Primary	North Holderness	64	25	39.1%
Quay Academy	Primary	Bridlington South	368	142	38.6%
Kings Mill	Special	Driffield & Rural	125	48	38.4%
Burlington	Infants	Bridlington Central & Old Town	234	83	35.5%
Easington Ce Academy	Primary	Howdenshire	37	13	35.1%
Withernsea	Primary	South East Holderness	562	197	35.1%

Source: Children's, Families and Schools Team, ERY. 2019.

3.6 Child Weight Profiles

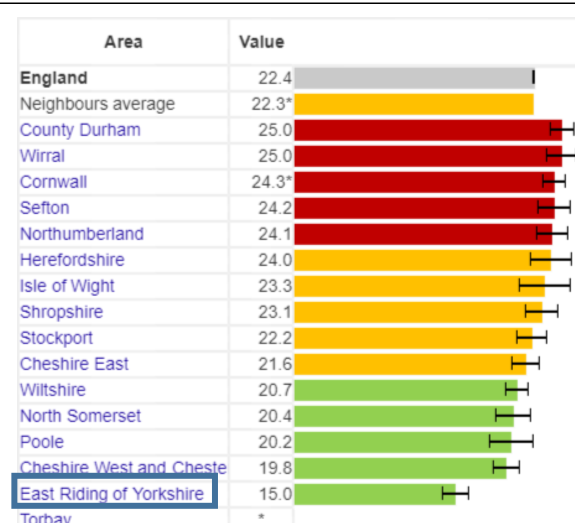
Oral health is an important aspect of a child's overall health status and to children's school readiness, and is seen as a marker of wider health and social care issues including poor nutrition and obesity. Tooth decay and obesity may be more likely to occur together given that excessive intake of sugar and social deprivation are risk factors for both conditions.

Chart 3.6.1 The proportion of ERY reception-aged children who are overweight over time.



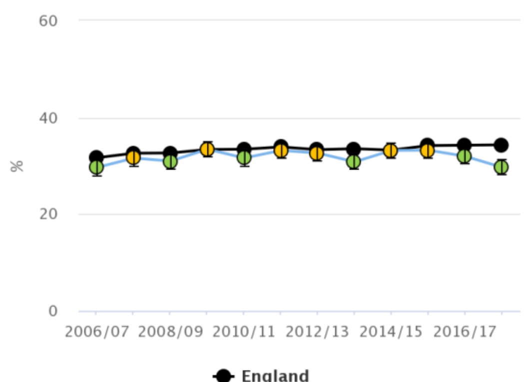
Source: PHE Fingertips, 2019.

Chart 3.6.2 The proportion of ERY reception aged children who are overweight compared to CIPFA peers. ERY has the lowest proportion compared to CIPFA peers and the second lowest in England.



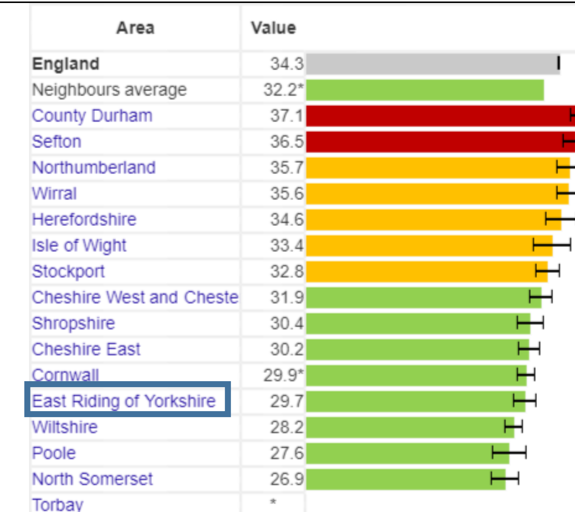
Source: PHE Fingertips, 2019.

Chart 3.6.3 The proportion of ERY year-6 children who are overweight over time.



Source: PHE Fingertips, 2019.

Chart 3.6.4 The proportion of ERY year-6 children who are overweight compared to CIPFA peers. ERY has the lowest proportion compared to CIPFA peers and the second lowest in England.



Source: PHE Fingertips, 2019.

https://fingertips.phe.org.uk/profile/national-child-measurement-programme/data#page/0/gid/8000011/pat/6/par/E12000003/ati/102/are/E06000011

4. Primary and Secondary Care Dental Services:

4.1 Primary Care Dental Services:

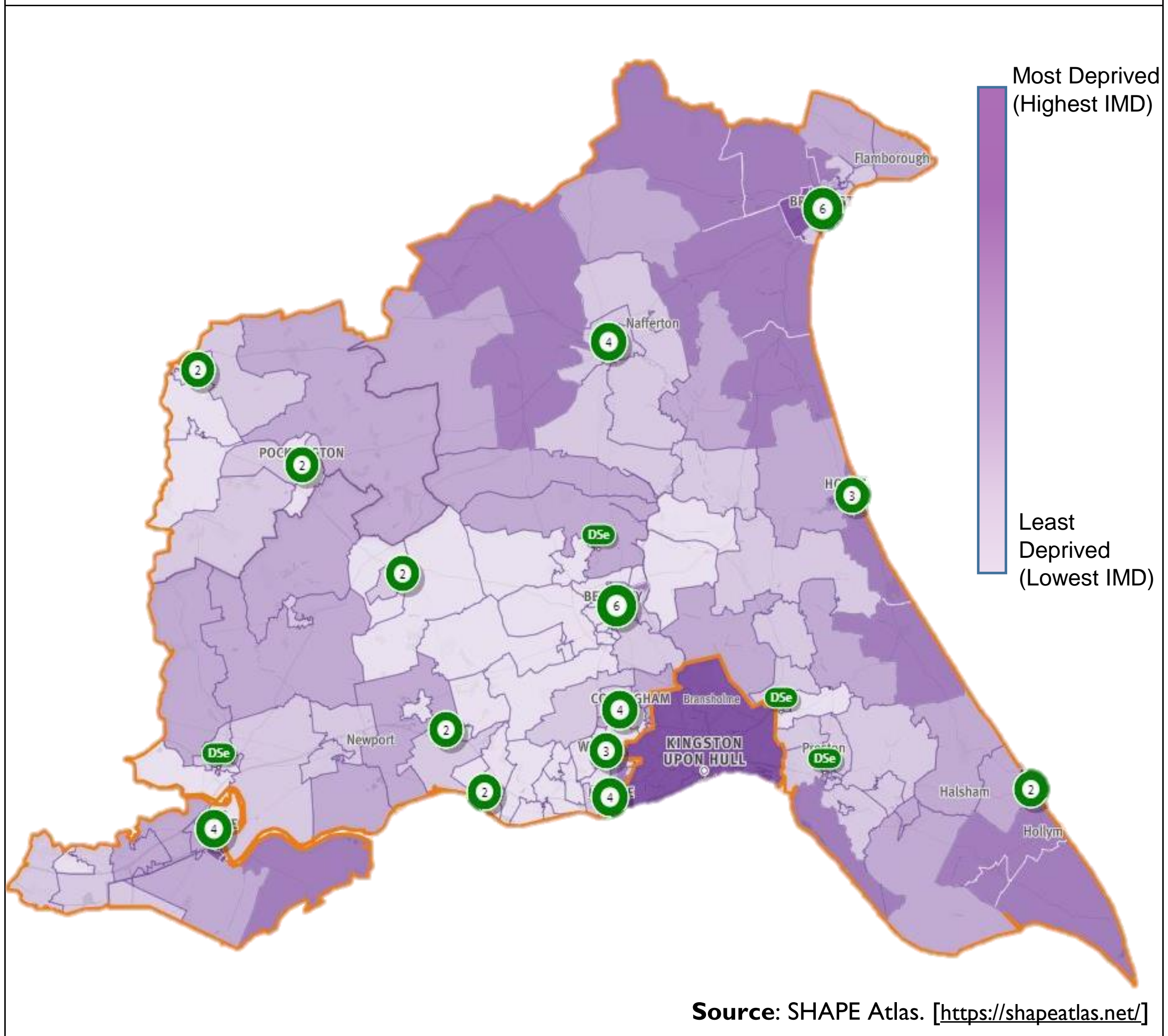
Primary dental services provide a range of care for the prevention and management of oral disease and injury. Primary care dental services include general dental services (high street dental practices), primary care based specialist services (minor oral surgery, orthodontics) and specialist led community dental services. All primary and secondary care dental services are commissioned via NHS England

Each dental practice is an independent business with a contract with the NHS to deliver set number of units of dental activity (UDAs). General dental services are directly accessed by the public.

Community dental services are salaried services which provide care to patients who may have difficulty accessing high street dental services due to their social, medical or dental need. This may include people with learning difficulties, complex medical needs, physical disabilities or challenging behaviour.

Local dental surgeries are the main point of contact with dental services for many local people. The availability of dental appointments is an asset for any community as they provide potential points of contact for Making Every Contact Count as well as providing preventative dental care and treatment. Dental health is linked to other factors including socio-economic status and there are significant inequalities in access to and uptake of care. According to figures from 2017, there is a total of 12,010 dental practices in the UK[5] and 50 dental practices in the ERY (2019)[6]. These practices can provide care under NHS and private arrangements.

4.1.1 Map showing all dental services within ERY (NHS and private). The map is coloured by IMD, with areas with higher levels of deprivation being darker coloured.



Source: SHAPE Atlas. [https://shapeatlas.net/]

Appendix 3 shows the number of dental services available per ward within the ERY.

Access to dental services:

In 2016-17, 51.4% of adults in England saw an NHS dentist in the 24 months leading up to June 2017 (2.2 million adults). During the same time period, 6.8 million children in England saw an NHS dentist in the 12-months leading up to June 2017, representing 58.2% of all children. Table 4.1.2 shows the percentage of children and adults accessing NHS dental care for ERY, Y&H and England in 2016/17. It is important to acknowledge that 100% of the population will never be seen by NHS dentists within a 24 month period as some people choose only access services when in need, or don't access dental services due to anxiety and phobias and a proportion will attend private services.

Table 4.1.2 Percentage of children and adults accessing NHS dental care (2016/17). Source: NHS Digital, 2017.		
Area	**Children seen in the previous 12 months as a percentage of the population (0-17 years)**	**Adults seen in the last 24 months as a percentage of the population (18 years+)**
ERY	54%	47%
NHS England North (Yorkshire and Humber)	63.2%	56.9%
England	58.2%	51.5%

The cost of dental treatments is sometimes a deterrent for individuals on low incomes. Patients are entitled to free NHS dental care depending on the treatment they need for dental or oral conditions. The NHS Low Income Scheme (LIS) provides partial help with the cost of dental care for individuals who do not qualify for fully-free treatment but are still on a low income. Eligibility for free dental services depends on age, education-status (i.e. in full-time education), pregnancy status, whether the patient is staying within hospital and treatment is part of stay, or patient is an NHS outpatient. Full eligibility criteria can be found here.

Table 4.1.2 shows the cost of NHS dental charges. It is worth noting that private practices can charge more for treatments. Private patients can also have dental insurance which helps to cover the cost of dental and oral treatments. Table 4.1.3 shows the total patient charges for dental service for 2016-17 for the ERY CCG.

Table 4.1.2 shows the cost of NHS dental charges.

Treatment	Description of coverage	Cost
Band 1	Examinations, diagnosis (including radiographs), advice, scale and polish and preventative care.	£22.70
Urgent	Emergency care such as pain relief or a temporary filling, in a primary dental practice.	£22.70
Band 2	Same coverage as Band 1, with further treatments such as fillings, root canal work or teeth removal.	£62.10
Band 3	Band 1 and 2 coverage plus crowns, dentures, bridges and other laboratory work.	£269.30

Table 4.1.3 shows the total patient charges for dental service for 2016-17 for the ERY CCG.

	Patient charges (in pounds) by treatment band, 2016-17				
	Band 1	**Band 2**	**Band 3**	**Urgent**	**Total**
NHS ERY CCG	£ 1,730,703.03	£ 1,701,890.25	£ 1,202,864.63	£ 250,833.38	£ 4,886,291.29
Number of treatments	76242	27406	4467	11050	

Table 4.1.4 shows the courses of treatment (CoT) performed by treatment band for the ERY CCG. Table 4.1.5 shows the CoTs performed for adults and children by clinical treatment.

Table 4.1.4 Courses of Treatment performed, by treatment band for 2016-17 for the ERY CCG. Source: NHS Digital, 2019.						
	Band 1	**Band 2**	**Band 3**	**Urgent**	**Other**	**Total**
NHS ERY CCG	147,248	55,860	8,897	19,369	1,531	232,905

Table 4.1.4 Estimated total number of courses of treatment that contain each clinical treatment for 2016-17 for the ERY CCG.** Estimations are aggregate totals of all band treatments. **not all treatments shown; summary table of main CoTs provided. **Source:** NHS Digital, 2019.					
	Scale and Polish	**Permanent Fillings or Sealant Restorations**	**Extractions**	**Antibiotic Items Prescribing**	**Bridge(s) Fitted**
Children	4,445	9,596	2,005	412	11
Adults	98,749	41,535	10,469	2,521	413

4.2 Secondary Care Dental Services:

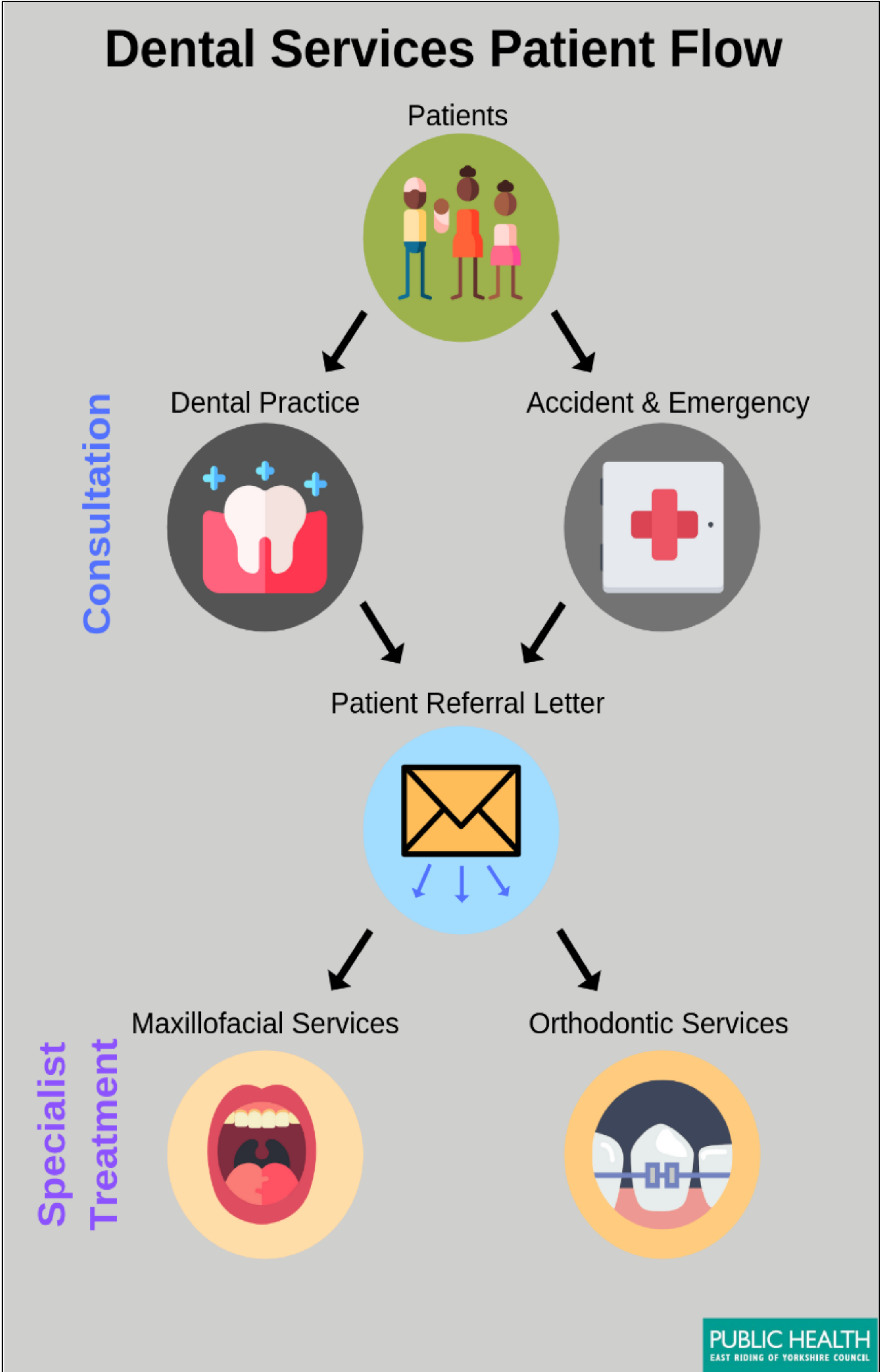
Secondary care dental services are specialist services, such as orthodontics, oral surgery, restorative dentistry, oral and maxillofacial surgery and paediatric dentistry (among others). Some of these services can be performed in primary care as well as a hospital setting.

Hull Royal Infirmary provides oral and maxillofacial surgery, oral surgery and head and neck cancer services. Goole and District Hospital provides oral and maxillofacial surgery and orthodontic services.

Patients living close to the borders with North Yorkshire, in areas such as Pocklington, may also access secondary care services at the York Hospital which offers oral and maxillofacial surgery, head and neck cancer services and orthodontics. Figure **4.2.1** is a general overview of patient flows for accessing secondary dental services.

Hospital dental services or secondary dental services require a referral from a medical or dental professional, including referrals from hospital A&E departments. These services are commissioned by NHS England.

Figure 4.2.1 General overview of patient flow through dental health services. It is interesting to note the ERY population could access secondary dental services in York or North Lincolnshire, depending on their area of residence within the ERY.



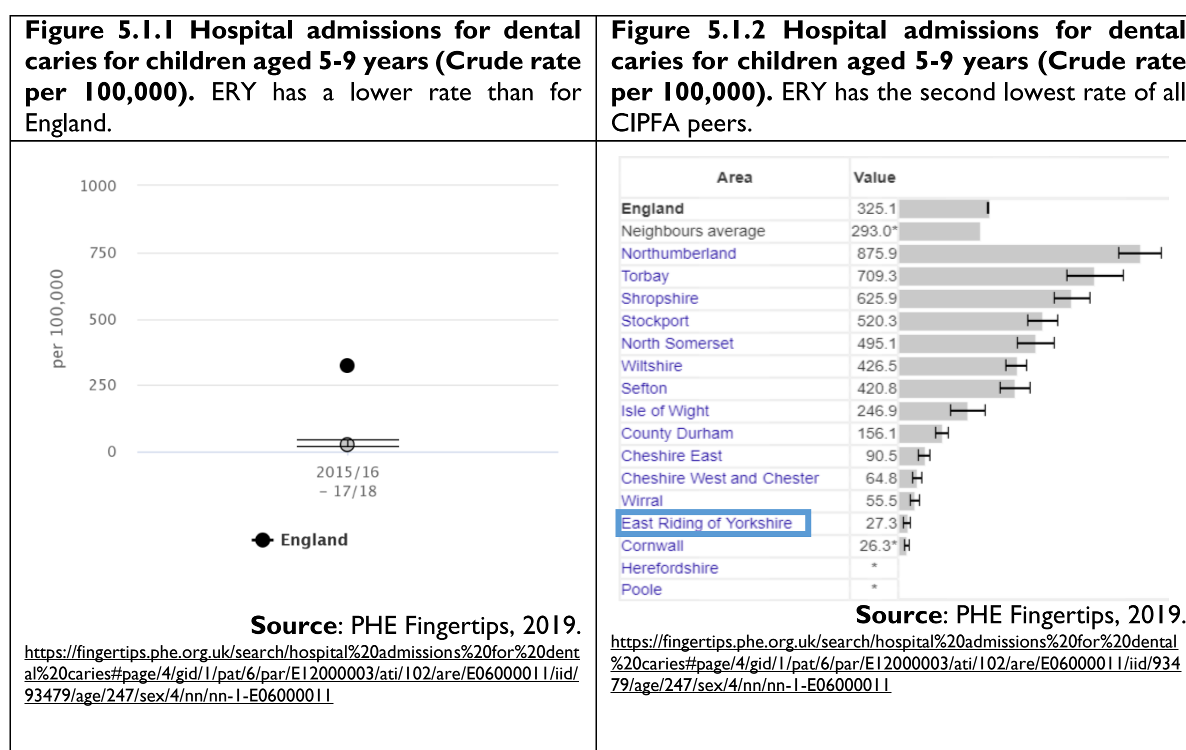
5. Hospital admissions for dental health conditions:

The number of hospital admissions for tooth decay for children aged 5-9 years has increased across England for the past three years. Admissions for tooth decay in other age groups (including 1-4 years old and 10-14 years old) has decreased. In 2016/17, 44,047 children across England were admitted to hospital for tooth decay. Tooth decay is the main reason for children aged 5-9-years to be admitted to hospital in England[7]. Some of these changes can be attributed to improved coding of this activity.

Proximity of hospital services providing this care may also be a factor in the decision to refer or not.

Extractions under general anaesthetic are required to be provided in a secondary care setting with access to critical care facilities. Anaesthetic and theatre support are provided by the hospital trust but the actual dental care is provided by appropriately trained and supported CDS or GDS clinicians.

5.1 Hospital admissions for dental caries for children aged 5-9 years (Crude rate per 100,000)



5.2 Hospital admissions for dental and oral conditions

Using ICD codes K02-K07, hospital admissions (planned and emergency) for the past 5-years were analysed by ward and by age. Appendix 4 shows the number of hospital admissions per wards ranked by IMD quintile.

Chart 5.2.1 shows the ERY hospital admission rates for dental caries by ward (crude rate per 100,000) for 2015/16-2017/18.

Chart 5.2.2 shows hospital admissions for dental caries by local deprivation (crude rate per 100,000) for 2015/16-2017/18.

Chart 5.2.1 ERY Residents admissions for dental caries (crude rate per 100,000). Goole South has the highest rate of admissions whereas Cottingham North has the lowest.
ICD K021, K025, K028, K029, K040, K045, K046 or K047, under operational codes F09 or F10

Source: NHS Digital, 2019.

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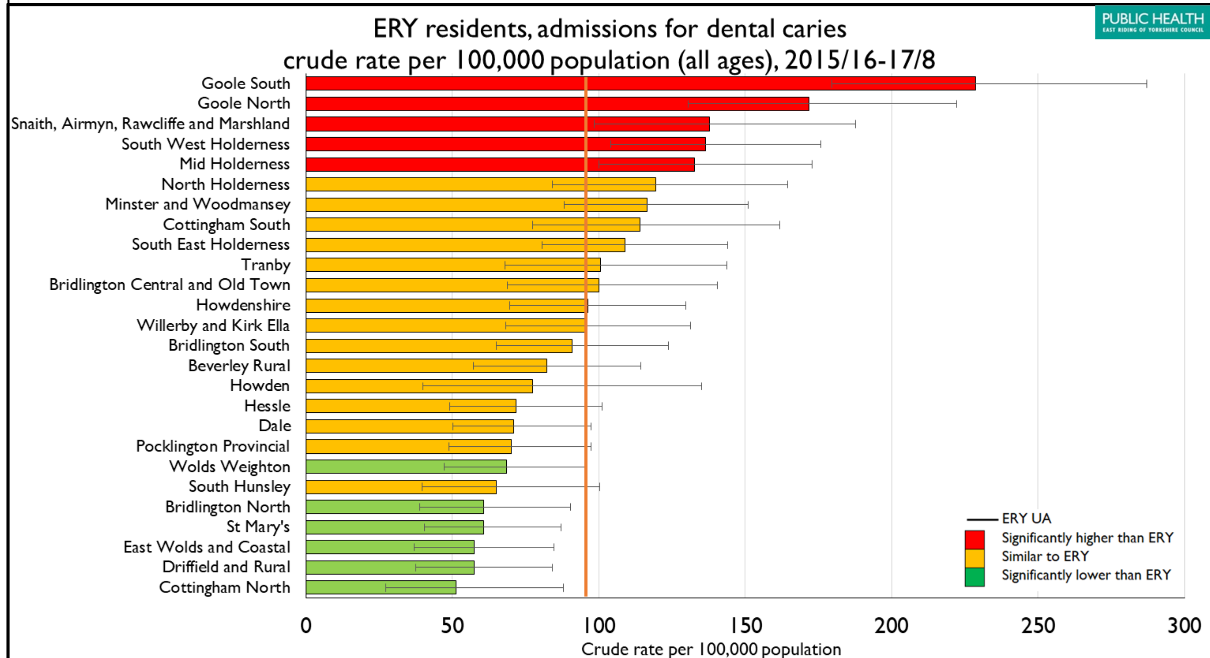

Chart 5.2.2 Hospital admissions for dental caries by local deprivation band, 2015/16-2017/18.
ICD K021, K025, K028, K029, K040, K045, K046 or K047, under operational codes F09 or F10

Source: NHS Digital, 2019.

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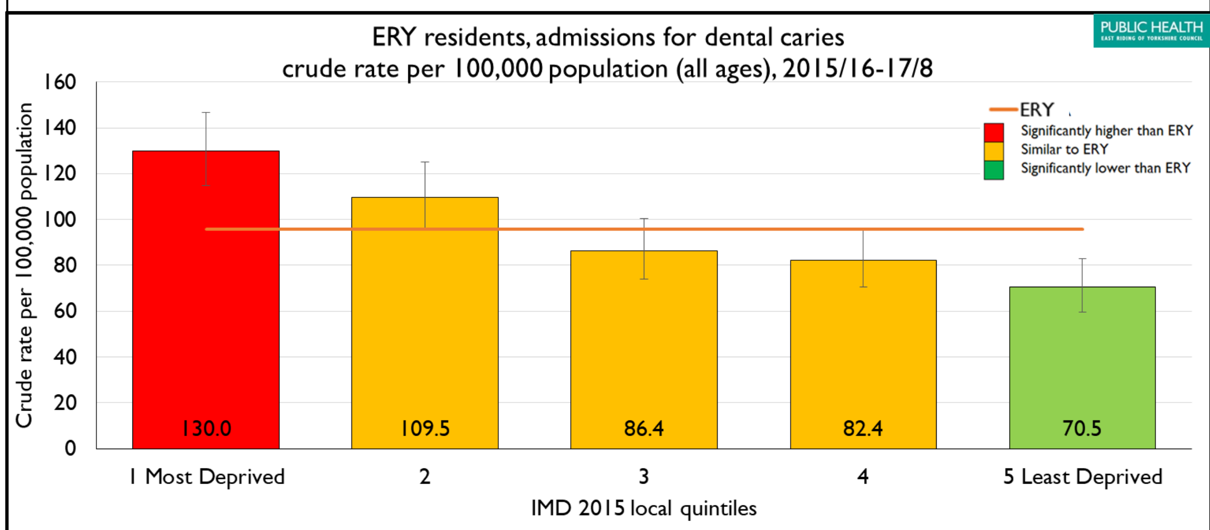


6. Child and Young Person Dental Health:

6.1 Prevalence of five-year-olds free from dental decay.

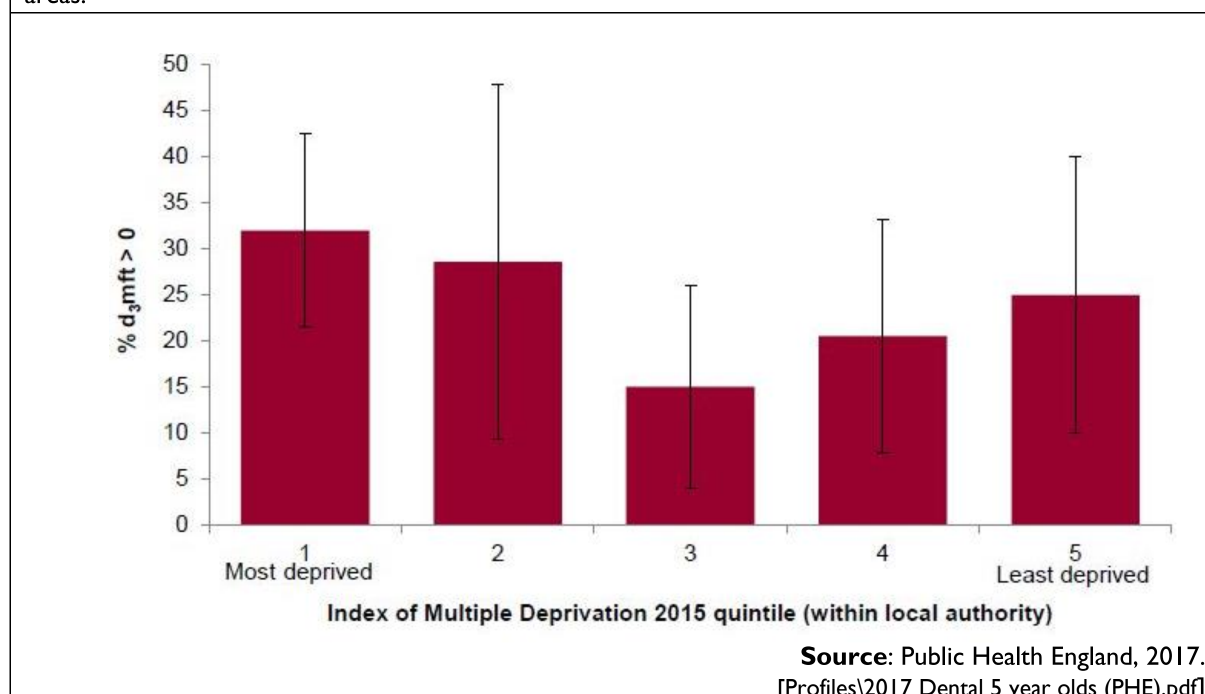
Tooth decay is predominantly preventable. Significant levels remain, resulting in pain, sleep loss and time off school and, in some cases, treatment under general anaesthetic. The inclusion of this indicator in the Public Health Outcomes Framework is to encourage local authorities to focus on and prioritise oral health and oral health improvement initiatives to reduce tooth decay.

Each year, the Dental Public Health Epidemiology Programme for England conducts an oral health survey of five-year-old children. No data is available for the ERY for the year 2016/17, however, data from the previous surveys are available at a county level.

According to PHE data for 2015, a quarter of 5-year-olds experienced tooth decay in England, and the vast majority went untreated. In 2015, tooth decay was the most common reason for hospital admissions for children aged 5 to 9-years-old and the sixth most common procedure in hospital for children aged 4-years and under[8].

Social deprivation is a risk factor for tooth decay. Research has identified that deprivation has a significant impact on tooth decay and dependence on benefits increases the risk of dental caries within an area. Furthermore, low household income is associated with tooth decay along with the level of education attainment by parents affecting the frequency at which children brush their teeth.

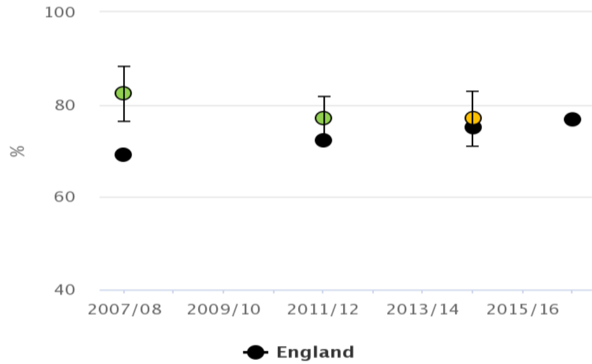
Chart 6.1.1 Prevalence of decay by Index of Multiple Deprivation 2015 quintiles for ERY local authority. This chart shows the prevalence of tooth decay is highest in the most deprived quintile. Tooth decay does rise in prevalence in the least deprived quintiles but not to same levels as seen in most deprived areas.



Source: Public Health England, 2017.
[Profiles\2017 Dental 5 year olds (PHE).pdf]

According to data from 2007-2015, the ERY has seen a reduction in the proportion of five-year-old children free from dental decay.

Figure 6.1.2 Proportion of five-year-old children free from dental decay in ERY and England. According to the most recent surveys, the proportion was becoming a similar proportion to the national proportion.



Source: PHE Fingertips, 2019 [https://fingertips.phe.org.uk/search/dental#page/4/gid/1/pat/6/par/E12000003/ati/102/are/E06000011/iid/90820/age/34/sex/4]

Figure 6.1.3 Proportion of five-year-old children free from dental decay in ERY, Y&H and England. ERY generally has a higher proportion however, this proportion of children appeared to be reducing and becoming a similar level to the national proportion.

Period	ERY	Y&H	England
2007/08	82.3%	61.2%	69%
2011/12	77.2%	66.5%	72.2%
2014/15	76.9%	71.5%	75.2%
2016/17	-	69.6%	76.7%

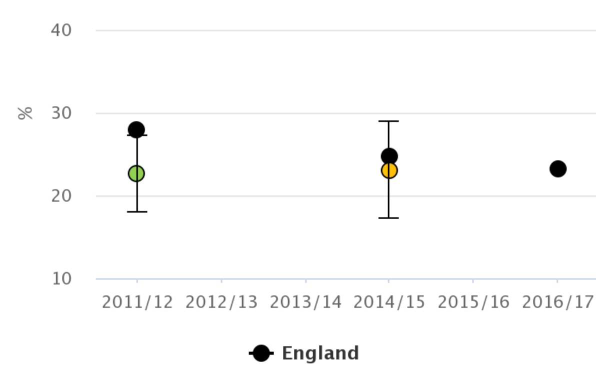
*RAG rating compares ERY to England, and Y&H to England.

Source: PHE Fingertips, 2019.

6.2 Decayed, missing or filled teeth in five-year-olds.

For children aged five-years-old or younger to have decayed, missing or filled teeth (dmft) then oral hygiene and diet could have been poor in the early years. The prevalence and severity of dental decay or oral disease at age five can be used as a proxy indicator of the impact of early year's services and programmes to improve parenting, weaning and feeding of very young children.

Figure 6.2.1 Decayed, missing or filled teeth in five-year-old children in ERY and England. ERY had lower proportions than England, however, the proportion appeared to be increasing nearer the national level in 2014/15. No ERY data available for 2016/17.



Source: PHE Fingertips, 2019 [https://fingertips.phe.org.uk/search/dental#page/4/gid/1/pat/6/par/E12000003/ati/102/are/E06000011/iid/90820/age/34/sex/4]

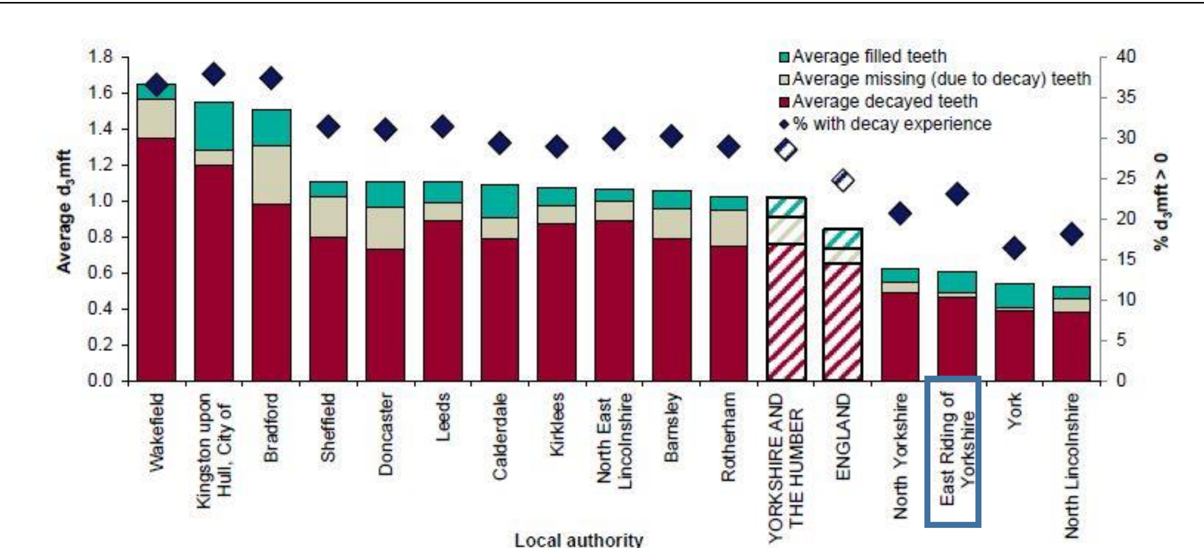
Figure 6.2.2 Decayed, missing or filled teeth in five-year-olds in ERY, Y&H and England. Y&H has significantly worse proportion of children with DMFT than compared to England.

Period	ERY	Y&H	England
2011/12	22.7%	33.6%	27.9%
2014/15	23.1%	28.5%	24.8%
2016/17	-	30.4%	23.3%

*RAG rating compares ERY to England, and Y&H to England.

Source: PHE Fingertips, 2019.

Chart 6.2.3 Average number of decayed, extracted or filled teeth and the proportion of children affected by dental decay (% dmft>0) among five-year old children in the ERY compared with England and local authorities in the Yorkshire and the Humber region. ERY has the third lowest average dmft of all the local authorities within the region. On average, five-year olds within ERY are more likely to have decayed teeth than any filled or missing.



Source: Public Health England, 2015. [Profiles\2017 Dental 5 year olds (PHE).pdf]

6.3 Sepsis

Sepsis in the context of dental epidemiology is a manifestation of infection related to dental disease (abscess or ulceration) and can occur in response to tooth or gum conditions. Prevention and early detection of the condition is crucial as left untreated dental sepsis like any other source of sepsis can become systemic and can be fatal. The prevalence of sepsis is a reflection of untreated dental disease. Table 6.3.1 shows the results from

the 2015/16 Dental Health Survey of 5-year olds and the estimated prevalence of sepsis in 5-year olds in 2017 for the ERY compared to regional and national prevalence.

Table 6.3.1 Prevalence of sepsis in examined population of 5-year olds during the 2015/16 Dental Health Survey. ERY had a lower prevalence of sepsis in examined 5-year olds than the national and regional prevalence.

Area	2014 mid-year population estimates	Examined	% of sample examined	Sepsis prevalence (% examined population)
England	673,956	111,500	63.1%	1.4%
Y&H	66,709	11,557	57.4%	2.2%
ERY	3,474	207	72.4%	0.8%

***RAG rating does not show significance by demonstrates ERY had a better prevalence than the national; Y&H had a worse prevalence than the national.*

Source: PHE Dental Public Health Epidemiology Programme for England, 2016.

6.4 Plaque

Plaque is a sticky, colourless or yellow-tinged film composed of bacteria that constantly forms on teeth. Plaque is the root of many oral health issues. Plaque bacteria produce acid from sugars in the diet which in turn attacks the teeth to produce cavities (tooth decay). Periodontal disease affects the structures which support the teeth; these are the tissues and ligaments which secure the teeth to the jaw bones. This disease is caused by a build-up of plaque around the teeth leading to the development of inflammation. The gums become swollen and bleed spontaneously (Gingivitis). In susceptible individuals the disease progresses by destroying the supporting structures of the teeth, the teeth become loose and if unchecked the disease results in tooth loss. Periodontal disease is predominantly a disease of adults, but gingivitis can affect any age group. Plaque accumulation can be minimised by good oral hygiene. Development of good oral hygiene habits from a young age is an essential life skill. Smoking increases an individual's susceptibility to periodontal disease and reduces their response to treatment.

Table 6.4.1 shows the prevalence of plaque in 5-year old sampled population for the 2015/16 Dental Health Survey.

Table 6.4.1 Prevalence of plaque in examined population of 5-year olds during the 2015/16 Dental Health Survey. ERY had a similar prevalence of plaque in examined 5-year olds than the national and regional prevalence.

Area	2014 mid-year population estimates	Examined	% of sample examined	Plaque prevalence (% examined population)
England	673,956	111,500	63.1%	1.7%
Y&H	66,709	11,557	57.4%	1.1%
ERY	3,474	207	72.4%	1.0%

***RAG rating does not show significance by demonstrates ERY had a similar prevalence than the national and regional prevalence of plaque. Likewise, it shows Y&H had a similar prevalence to England.*

Source: PHE Dental Public Health Epidemiology Programme for England, 2016.

6.5 Brush Bus Programme:

This is supervised tooth brushing activity which takes place every day in many schools and nurseries. The programme is an innovative oral health initiative aimed at reducing the prevalence of tooth decay by increasing child exposure to fluorides. Currently, 24 ERY schools (nursery, primary and special) are participating in the scheme. Across these schools, 1327 children aged 0-14 years engaged with the programme. Early years foundation stage pupils (aged 0-5 years) were the most prominent age group (826 pupils; 62% of participants). Table 6.5.1 shows these ERY schools and the number of children participating in the scheme.

Table 6.5.1 Targeted ERY schools participating in the Brush Bus programme. The total number of pupils engaged in the programme. These were the schools engaged in the programme, either through targeting or enrolment, at the end of financial year 2018/19.

Venue	Number of children on roll	Total number of pupils aged 0-14 years participating in Brush Bus programme
Bay Primary School (BRUSH BUS)	407	60
Boothferry Primary (BRUSH BUS)	382	110
Boynton Primary (BRUSH BUS)	65	15
Burton Agnes C.E. (V.C.) (BRUSH BUS)	95	30
Christ Church Nursery/Pre School (BRUSH BUS)	29	40
Kings Mill Special School	125	98
Kingsway Childrens Centre (BRUSH BUS)	Unknown	40
Marshlands Primary School	292	44
New Pasture Lane C.P. Pre-School	36	30
New Pasture Lane C.P. School	249	70
Nursery Rhymes	Unknown	50
Patrington C.E. Primary Academy	222	110
Quay Academy	368	60
Riverside Area Special School	95	95
Roundabout Nursery	63	40
School House Nursery	92	30
Skipsea Primary	50	35
St Annes Community Special School	157	120
St Joseph'S Catholic Primary	110	30
St. John Of Beverley Rc Primary School	172	45
Swinefleet Primary School	57	10
Teeny Tots Nursery	43	40
Withernsea Day Nursery	43	35
Withernsea Primary School	562	90
Total	**3714**	1327

Appendix 5 shows the age breakdown of participating pupils by age group.

Appendix 6 shows full list of targeted settings from 2015-2019.

7. Adult Dental Health:

7.1 Adult Dental Health Survey, 2009

Every decade since 1968, a survey of the dental health of adults has been conducted. This survey provides information to underpin and aid planning dental health care for the UK as a whole.

Over the past 40 years, adult oral health has improved significantly as reported in the decennial national UK adult oral health surveys. An innovative adult in-practice survey was undertaken as part of the Dental Public Health Programme, 2017/18. The ERY participated in this survey and results are anticipated to be published in the coming months. However, the most recent data on adult oral health is drawn from the 2009 national adult dental health survey, which is reported at Yorkshire and the Humber level[9].

In 2009, 6% of adults in England were found to have no natural teeth (edentulous) with this figure rising to 7% in Yorkshire and the Humber. The proportion of adults with no natural teeth fell from 37% in 1968 to 6% in 2009. The fact that at least half of people aged 85 and over have retained some natural teeth has implications as many older people will have heavily restored (filled, crowned) teeth requiring future maintenance alongside continued preventative care. This may be difficult as patients become frailer, with increasingly complex medical histories; and mobility issues can affect access to dental services requiring premises with good disability access or domiciliary care.

Between 1998 and 2009 the prevalence of active tooth decay in adults in England fell from 46% to 28%. There were reductions across all age groups but the largest reduction was within the 25-34 year age band. The proportion with active tooth decay varied by age with the 25 to 34 years group having the highest prevalence, 36%, and those aged 65-74 years the lowest, 22%.

In 2009, 45% of adults with some natural teeth in England had mild gum disease, 9% had moderate disease and 1% had severe disease. Between 1998 and 2009 there was an overall reduction in the prevalence of moderate disease from 55% to 45%. However for more severe forms of disease an overall increase from 6% to 9% was observed. In Yorkshire and the Humber there was a greater proportion of adults with moderate and severe forms of gum diseases relative to the national average: 42% of adults had mild disease, 10% had moderate and 2% had severe disease.

8. Older people dental health:

Older people form a large proportion of the ERY population (25% of the 2017 population according to ONS estimates) and as such there is a clear need to investigate the oral health needs of this group. The 2009 Adult Dental Health Survey showed a general increase in England in the proportion of older people retaining many of their natural teeth. More complex clinical care is likely to be needed for these people due to many older individual's having heavily restored dentitions and a background of complex medical conditions.

8.1 Oral Health Survey for Mildly Dependent Older People, 2016.

691 people took part in Yorkshire and the Humber, of which 32.4% had no natural teeth in either jaw (compared with 27% for England). 1.5% had no natural teeth or replacements which was again higher than nationally (1.2%). Nationally, 16% of 65-74 year olds, 13% of 75-84 year olds and 11% of 85+ year olds said they occasionally or more often avoided meals or had interrupted meals due to their teeth. 9.1% of people said they had current pain, and 7.4% had evidence of the presence of either a visible pulp, ulceration of the oral mucosa due to root fragments, a fistula or an abscess. 68% of 65-74 year olds, 67% of 75-84 year olds and 60% of 85+ year olds said they had seen a dentist in the previous 24 months. Respondents reported painful aching in their mouths (26.9%), interruption of meals to avoid eating (12.7%), difficulty eating due to oral issues (30.6%) and embarrassment due to mouth issues (19.6%). The full report can be found here.

Table 8.1.1 shows the breakdown by local authority of survey responses. Nearly half of the elderly respondents had not seen a dentist in the last 2-years, due to either issues accessing an NHS service, affordability of dental services or transportation difficulties.

Table 8.1.1 Survey results from the National Dental Epidemiology Programme for England: Oral health survey of mildly dependent older people 2016. The proportion of respondents within ERY, Y&H and England with common oral health complaints. The RAG rating for these results have not had significance calculated but instead indicate whether ERY is better (green), similar (yellow) or worse (red) than compared to England.

	ERY	Y&H	England
% volunteers with any oral health impacts fairly or very often	34.4%	17.7%	17.7%
% volunteers not seen a dentist within last 2-years	46.9%	34.3%	34.0%
% can't find NHS dentist	6.7%	9.3%	7.3%
% say it's difficult to get to and from the dentist	6.7%	14.2%	12.9%
% cannot afford NHS charges	13.3%	6.1%	7.2%
% volunteers edentulous	31.3%	32.4%	27.0%
% with no posterior functional contacts	15.6%	17.1%	15.8%
% volunteers with fixed replacement	6.3%	8.4%	7.5%

% with removable replacement	59.4%	52.2%	53.1%
% dentate volunteers with visible plaque	68.2%	63.5%	69.9%
% dentate volunteers with visible calculus	63.6%	63.8%	61.3%
% volunteers with full dentures in need of replacement	13.3%	14.8%	14.8%
% dentate volunteers reporting current pain in mouth	22.7%	9.7%	9.5%
% dentate volunteers with one or more PUFA conditions	36.4%	10.7%	7.8%
% volunteers with urgent need for treatment	3.1%	1.9%	3.2%
% volunteers who would require domiciliary treatment	3.2%	3.2%	5.1%
Source: National Dental Epidemiology Programme for England Oral Health Survey of mildly dependent older people, 2016. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/773355/NDEP_For_England_oral_health_survey_of_mildly_dependent_older_people_2016_report.pdf]			

8.2 Dental health in nursing and residential homes:

Many older people live at home and are either mildly dependent or rely on support from carers and family members. However, older people can become more vulnerable if they move into a care home or have a period of time in hospital, as they become more reliant on carers and medical staff to help them maintain their oral health. More than half of older adults who live in care homes have tooth decay compared with 40% of over seventy-fives who do not live in care homes. People living in care homes or in hospital are at greater risk of oral health problems for several reasons:

- Long-term conditions (including arthritis, Parkinson's disease and dementia) can make it harder to hold and use a toothbrush, and to go for dental treatment.
- People now keep their natural teeth for longer, but this can mean they need more complex daily support with oral health care and dental care than people who have dentures.
- Many medicines reduce the amount of saliva produced and leave people with a dry mouth which increases their risk of developing dental decay.

All residents should have an oral health assessment when they move into a care home or hospital, in accordance with NHCE guidelines for oral health in care homes[10]. There is no current data indicating the availability of oral health assessments being undertaken in the ERY, and whether residents are accessing regular dental care. It is also unknown how many dental practices provide domiciliary care for those who cannot attend dental practices.

8.3 Oral health and dementia:

Maintaining oral health for people with dementia can be challenging. As dementia progresses, individuals can lose the ability to maintain their own oral hygiene and carers may need to take over this task. There may come

a time when the person with dementia is unable to communicate they are experiencing pain or discomfort in their mouth or teeth. Individuals with dementia can need to rely on other people provide daily oral health care, to notice and interpret their behaviour and to arrange a visit to the dentist if necessary. There are several behavioural changes that may indicate that someone with dementia is experiencing dental problems. These may include refusal to eat (particularly hard or cold foods), frequent pulling at the face or mouth; leaving previously worn dentures out of their mouth, increased restlessness, moaning or shouting, disturbed sleep, refusal to take part in daily activities and aggressive behaviour. People with dementia are also likely to have increased problems with bruxism (grinding teeth), chewing and swallowing and denture wearing.

Within ERY, dementia is becoming increasingly prevalent, as is the case across the country. Figure 8.3.1 and 8.3.2 shows the prevalence of dementia among the 65+ year old population.

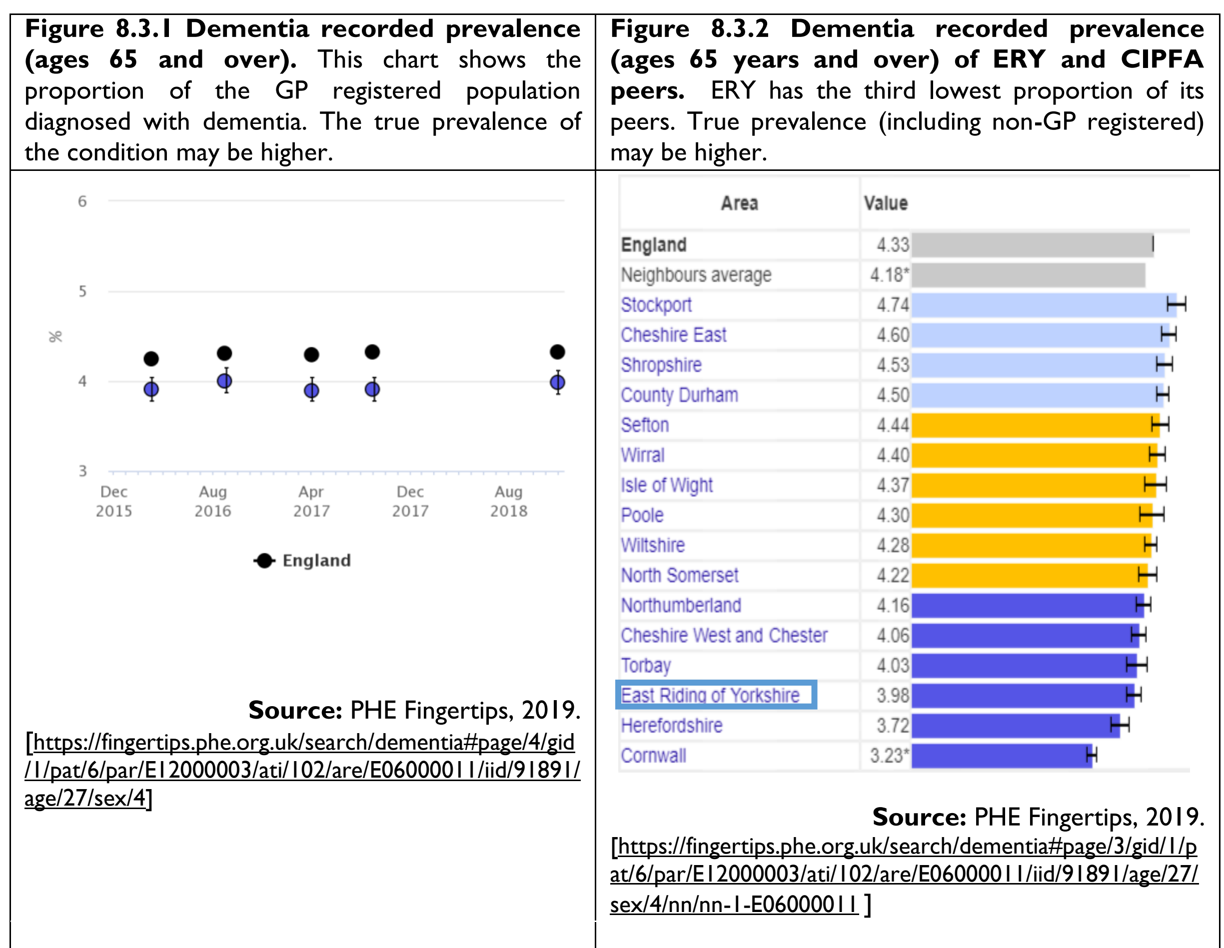


Figure 8.3.1 Dementia recorded prevalence (ages 65 and over). This chart shows the proportion of the GP registered population diagnosed with dementia. The true prevalence of the condition may be higher.

Source: PHE Fingertips, 2019. [https://fingertips.phe.org.uk/search/dementia#page/4/gid/1/pat/6/par/E12000003/ati/102/are/E06000011/iid/91891/age/27/sex/4]

Figure 8.3.2 Dementia recorded prevalence (ages 65 years and over) of ERY and CIPFA peers. ERY has the third lowest proportion of its peers. True prevalence (including non-GP registered) may be higher.

Source: PHE Fingertips, 2019. [https://fingertips.phe.org.uk/search/dementia#page/3/gid/1/pat/6/par/E12000003/ati/102/are/E06000011/iid/91891/age/27/sex/4/nn/nn-1-E06000011]

In the early stages of dementia, most types of dental care are possible. It is important at this stage to encourage regular dental attendance and appropriate treatment planning to support care in the future. However in the middle stages the focus of treatment is likely to be on prevention of further dental disease. In the later stages some people may require sedation or general anaesthesia for their dental treatment. The decision will be based on the individual's ability to co-operate, dental treatment needs, general health and social support. It is during the middle stages that issues around consent to treatment may also start to arise. Treatment at later stages is liable to focus on prevention of dental disease, maintaining oral comfort, and provision of emergency treatment.

Simple adaptations to practice premises and dementia friends training can make the practice environment more acceptable to patients with dementia. Some dentists may provide domiciliary care as this can be less stressful and confusing for the individual and can increase co-operation, however it limits treatment options.

9. Vulnerable groups:

9.1 People with Learning Disabilities

Good oral health is an important factor in people's general health and quality of life. However, evidence shows that people with learning disabilities have poorer oral health and more problems accessing dental services than people in the general population. People with learning disabilities may need additional help with their daily oral care and support to get good dental treatment due to cognitive, physical and behavioural factors.

There is a legal obligation for dental services to make reasonable adjustments to ensure patients with learning disabilities can use their services the same way as the rest of the population. These adjustments include practical or environmental changes.

Evidence suggests that individuals with additional needs, such as learning disabilities have higher levels of periodontal disease, gingival inflammation, more missing teeth, increased rates of edentulism, higher plaque levels and poorer access to preventative dentistry services.

Within ERY, it is estimated 0.5% of the GP practice registered population has a learning disability. For many of these individuals, they are reliant on carers for their daily oral care. Often carers or supporters (i.e. family member carers) are inadequately trained or unaware of the need to prioritise oral health.

Access to dental surgeries is a major barrier for many people with a disability, including learning disabilities. A study identified that although 77% of UK dental practices claim to be accessible for wheelchair users, only 7% also had suitable parking and toilet facilities[11].

Below is a table which lists the main barriers to people with learning disabilities receiving efficient oral care, as described by Public Health England[12].

Table 9.1.1 Barriers to people with learning difficulties receiving efficient oral health care.
Source: PHE, 2019.

Barrier	**Description**	**Example**
Individual Characteristics	Cognitive, physical and behavioural difficulties impacting the individual's ability to take care of their oral health.	• Don't understand the importance of oral health • Limited mobility to brush teeth • Sensory issues mean do not like to be touched (i.e. by dentist) • Limited communication
Carers	Many people with learning difficulties rely on carers for support, including oral health care.	• Limited awareness of dental services available, including community dental services • Lack of training around providing oral care • Understaffing and lack of time • Oral health not considered priority • Difficulty in brushing due to limited cooperation • Concern oral hygiene methods are painful (i.e. brushing or flossing)
Access	The ability for individuals with learning disabilities can be hindered by their difficulties.	• Not having a regular dentist • Difficulties getting an NHS dentist • Cost of dental treatment • Finding a general dentist practice willing to provide treatments and make any necessary

		reasonable adjustments (i.e. longer appointments) • Complex referral systems and delays in specialist services • Reliance on carers to make and support with appointments • Difficulties with transport • Lack of accessibility of dental surgeries for people in wheelchairs.
Pain recognition and response	Some learning disabilities make it difficult for people to communicate their pain or describe its source. Diagnostic overshadowing is also an issue where professionals overlook poor health symptoms and attribute this to someone's disability, rather than investigate and treat the source.	• Deciphering an individual's signals for when they are in pain but unable to verbally communicate the source of the problem • Anxiety about treating patients with learning disabilities preventing medical or dental professionals from performing routine checks (i.e. dental examinations under anaesthetic for challenging behaviour)
Attitudes, skills and knowledge of dental staff	Many dentists are unconfident in treating people with learning disabilities. This causes some dentists to be unwilling to treat patients with learning disabilities at all.	• Poor attitudes can be barriers for carers and patients approaching dental staff • Need for respect and rights acknowledgement
Transition	Transition from children to adult health services can be difficult.	• Confusion at the change in services • Lack of familiarity with dental professionals

9.2 Gypsy and Traveller Communities:

According to research, individuals from gypsy and traveller communities are more likely to require emergency dental treatment[13]. These communities are less likely to register with local dental services or regularly seek oral health help and information.

There are three sites within the ERY which gypsy and traveller communities can settle upon and rent pitches from the county council[14]. The sites are located at:

- Woodhill Travellers Site, Woohill Way, Cottingham, HU16 5SX
- Woldgate Travellers Site, Woldgate, Bridlington, YO16 4XE
- Eppleworth Travellers Site, Westfield Road, Skidby, HU16 5YJ

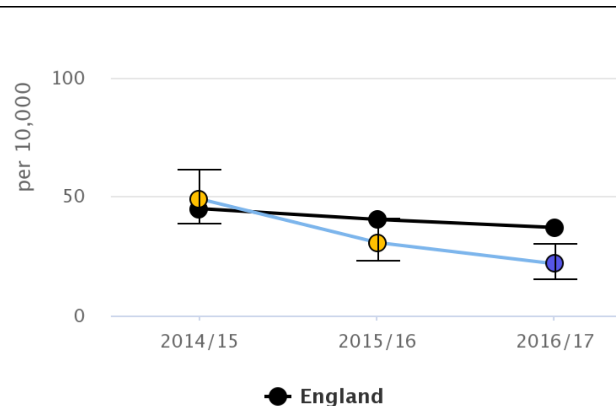
According to the 2012 Gypsy and Traveller Needs Assessment conducted by the ERY Council, there was an estimated 488 individuals within this minor community. Demographic information was not estimated. The full needs assessment can be accessed here.

9.3 Looked after children (LAC):

Children in care, including those in foster and residential care, have double the rates of emergency dental treatment and are half as likely to attend the dental services as the general child population. Children in care are also twice as likely to have a tooth extraction under general anaesthetic[15].

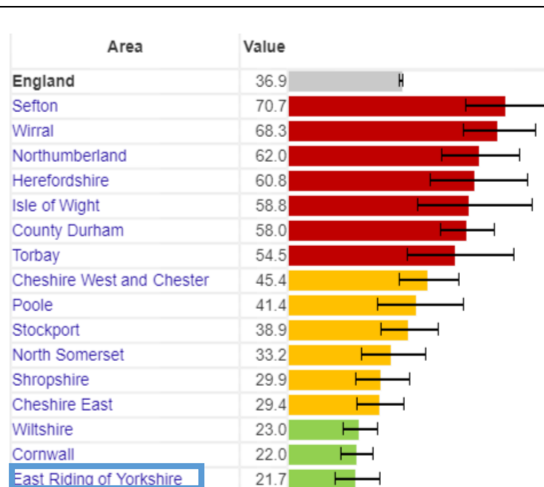
According Health Matters (PHE), there is statutory guidance for promoting the health and wellbeing of LAC which includes a statutory health assessment of dental care appropriate to their needs and treatment.

Figure 9.3.1 Children looked after aged under 5 years old in ERY. ERY has significantly lower rate of LAC than the English rate



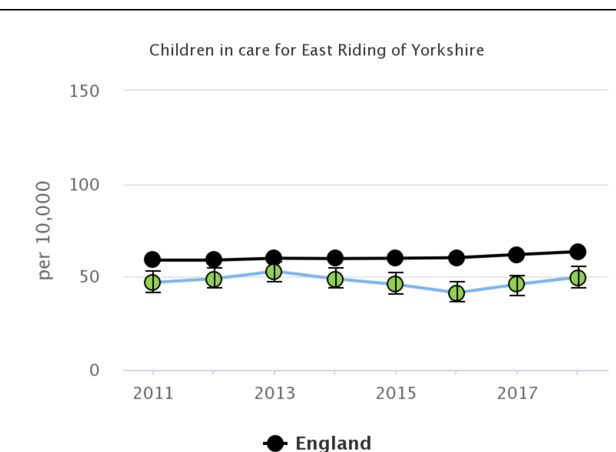
Source: PHE Fingertips, 2019

Figure 9.3.2 Children looked after aged under 5 years old in ERY compared to CIPFA nearest neighbours.



Source: PHE Fingertips, 2019

Figure 9.3.3 Children in care in ERY compared to England. ERY has significantly lower rates of children in care than England. (2011-2018).



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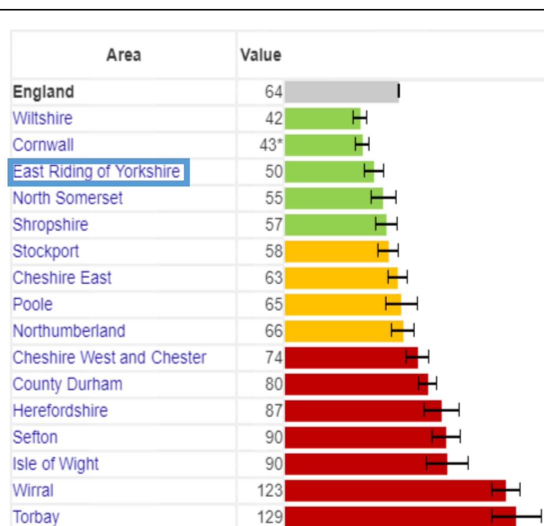
Source: PHE Fingertips, 2019

[https://fingertips.phe.org.uk/search/children%20in%20care#page/4/gid/1/pat/6/par/E12000003/ati/102/are/E06000011/iid/90803/age/173/sex/4]

Figure 9.3.4 Children in care in ERY compared to CIPFA nearest neighbours. ERY has the third lowest rate of children in care compared to its statistical peers (2018).



Source: PHE Fingertips, 2019

[https://fingertips.phe.org.uk/search/children%20in%20care#page/3/gid/1/pat/6/par/E12000003/ati/102/are/E06000011/iid/90803/age/173/sex/4/nn/nn-1-E06000011]

10. Oral Cancers:

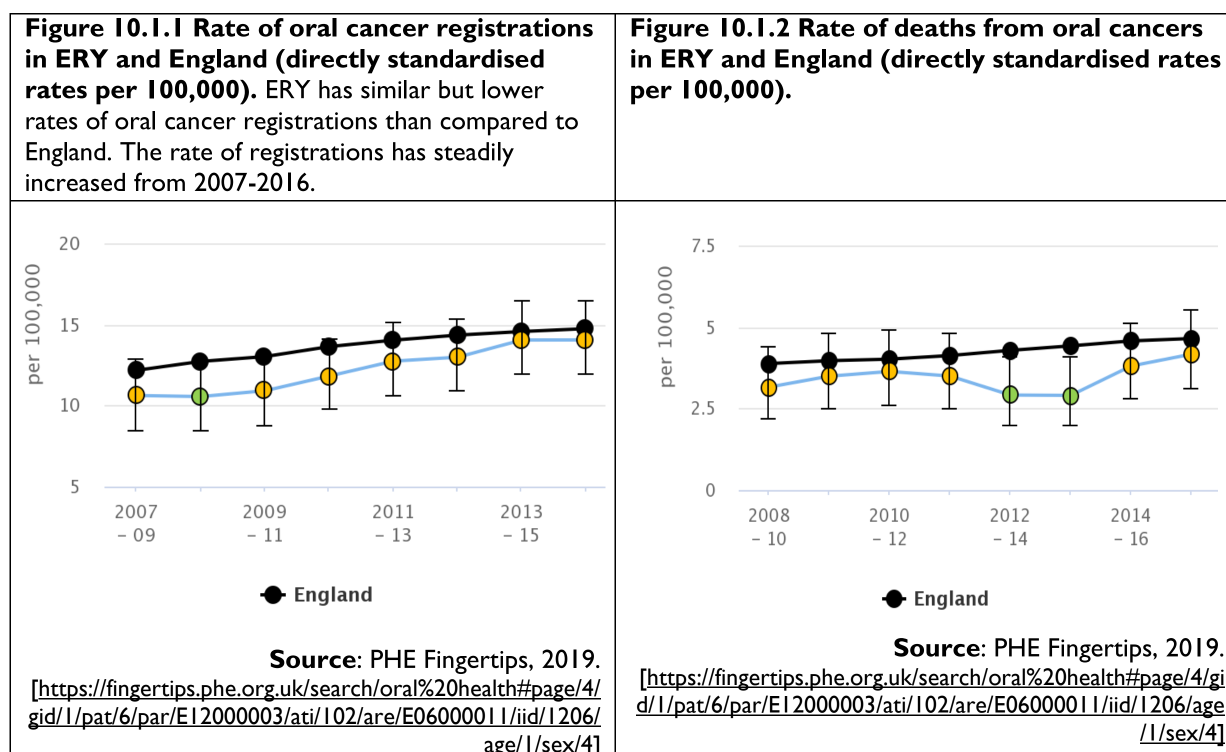
Over the last decade in the UK (between 2003-2005 and 2012-2014), oral cancer mortality rates have increased by 20% for males and 19% for females. Five year survival rates are 56%. Mouth cancers make up 1-2% of all new cancers in the UK. Historically, this form of cancer is more prevalent in males than females, with cancer risk increasing with age. In the UK, most cancers occur in people aged 50 or older, however, mouth cancer incidence in younger people is increasing and recently rates have increased from approximately 5,000 cases per year in the UK to 7,000. Men are also identified to be more than twice more likely to develop oral cancer than women, with 5,300 men being diagnosed with oral cancer every year in the UK compared to around 2,500 women[16].

10.1 Oral cancer prevalence in ERY:

The prevalence of oral cancer within ERY has risen from 2007-2016 (figure 10.3.1). The rate of oral cancer deaths has fluctuated from 2008-2017 however has generally been of a similar level to the rate of deaths for England (figure 10.3.2).

Figure 10.1.1 Rate of oral cancer registrations in ERY and England (directly standardised rates per 100,000). ERY has similar but lower rates of oral cancer registrations than compared to England. The rate of registrations has steadily increased from 2007-2016.

Figure 10.1.2 Rate of deaths from oral cancers in ERY and England (directly standardised rates per 100,000).



Source: PHE Fingertips, 2019. [https://fingertips.phe.org.uk/search/oral%20health#page/4/gid/1/pat/6/par/E12000003/ati/102/are/E06000011/iid/1206/age/1/sex/4]

Source: PHE Fingertips, 2019. [https://fingertips.phe.org.uk/search/oral%20health#page/4/gid/1/pat/6/par/E12000003/ati/102/are/E06000011/iid/1206/age/1/sex/4]

10.2 Risk factors for oral cancer

Most oral cancers are associated with tobacco and alcohol consumption, which act synergistically and together account for 75% of cases. The risk among cigarette smokers is estimated to be 10 times that for non-smokers. More intense use of tobacco increases the risk, while ceasing to smoke for 10 years or more reduces it to almost the same as that of non-smokers. Oral cancer mortality rates can be used in conjunction with registration data

to inform service planning as well as comparing survival rates across areas of England to assess the impact of public health prevention policies such as smoking cessation. Oral cancers are frequently diagnosed at a late stage which contributes to the relatively poor 5 year survival compared to other forms of cancer, Additionally, the treatment even at earlier stages is frequently invasive and often debilitating, with significant impacts on the quality of life of survivors.

ERY has a very successful smoking cessation programme and has the tenth lowest smoking prevalence for adults aged 18+ for the whole of England. See figure 10.2.1 for the recent trend in smoking prevalence within ERY adults.

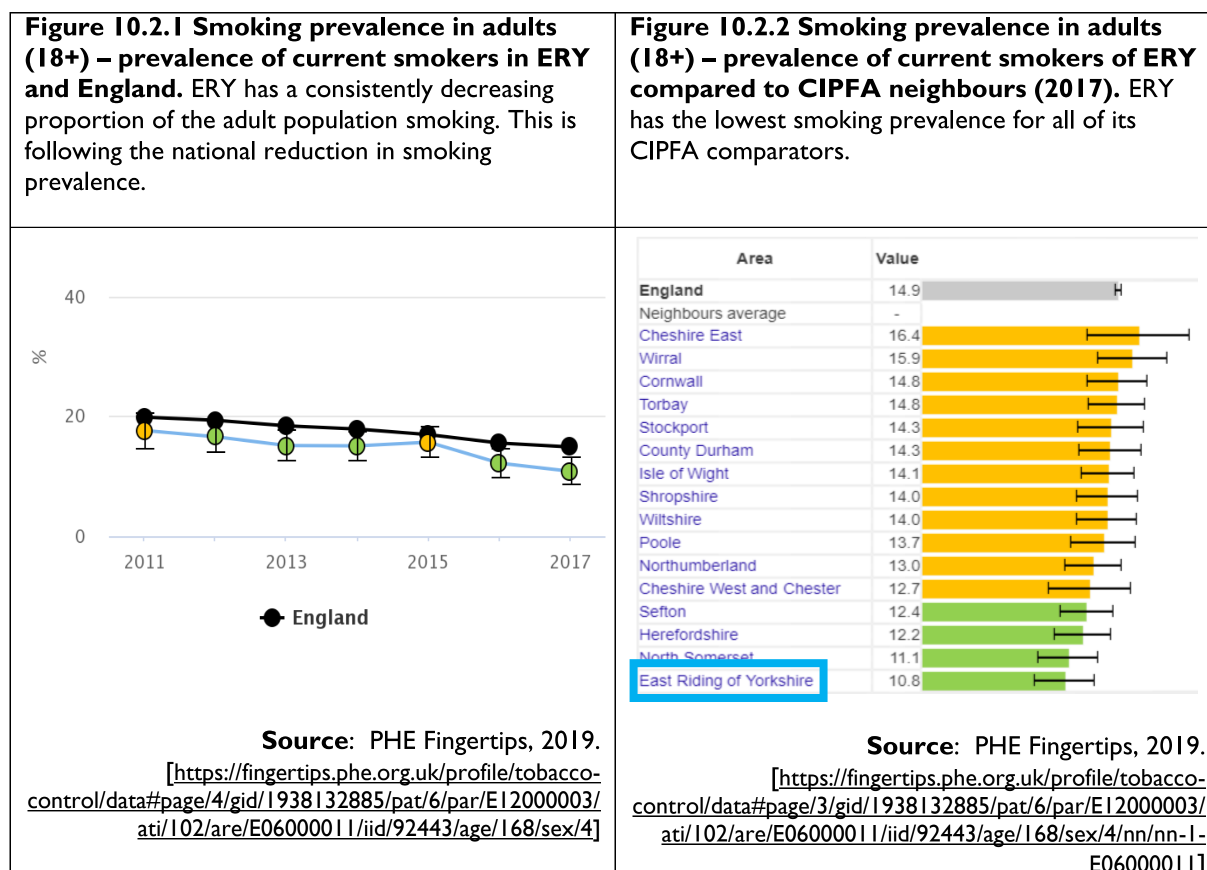


Figure 10.2.1 Smoking prevalence in adults (18+) – prevalence of current smokers in ERY and England. ERY has a consistently decreasing proportion of the adult population smoking. This is following the national reduction in smoking prevalence.

Source: PHE Fingertips, 2019. [https://fingertips.phe.org.uk/profile/tobacco-control/data#page/4/gid/1938132885/pat/6/par/E12000003/ati/102/are/E06000011/iid/92443/age/168/sex/4]

Figure 10.2.2 Smoking prevalence in adults (18+) – prevalence of current smokers of ERY compared to CIPFA neighbours (2017). ERY has the lowest smoking prevalence for all of its CIPFA comparators.

Source: PHE Fingertips, 2019. [https://fingertips.phe.org.uk/profile/tobacco-control/data#page/3/gid/1938132885/pat/6/par/E12000003/ati/102/are/E06000011/iid/92443/age/168/sex/4/nn/nn-1-E06000011]

Alcohol is a known risk factor of many physical health issues and excessive alcohol consumption is a major health concern in England. In 2011-14, 28.9% of adults identified as drinking in excess of 14 units of alcohol per week. This was similar to the England proportion of 25.7%.

Human Papilloma Virus (HPV) is associated with oropharyngeal cancers and some mouth cancers and is thought to relate to the increasing prevalence of these cancers in younger age groups. HPV are a group of viruses that affect the skin and moist membrane linings of the body. There is no prevalence data available at a national or local authority level. Vaccines are offered to girls aged 12-18 years to help protect them against the types of HPV which most commonly cause cervical cancer. It is anticipated that there will also provide protection against oropharyngeal and mouth cancers. Population vaccine coverage in 13-14 year old females receiving both required doses of the HPV vaccine was 88.1% for ERY compared to 83.1% for England in 2016/17.

Charts 10.2.3 and 10.2.4 display HPV vaccination coverage for one and two doses respectively.

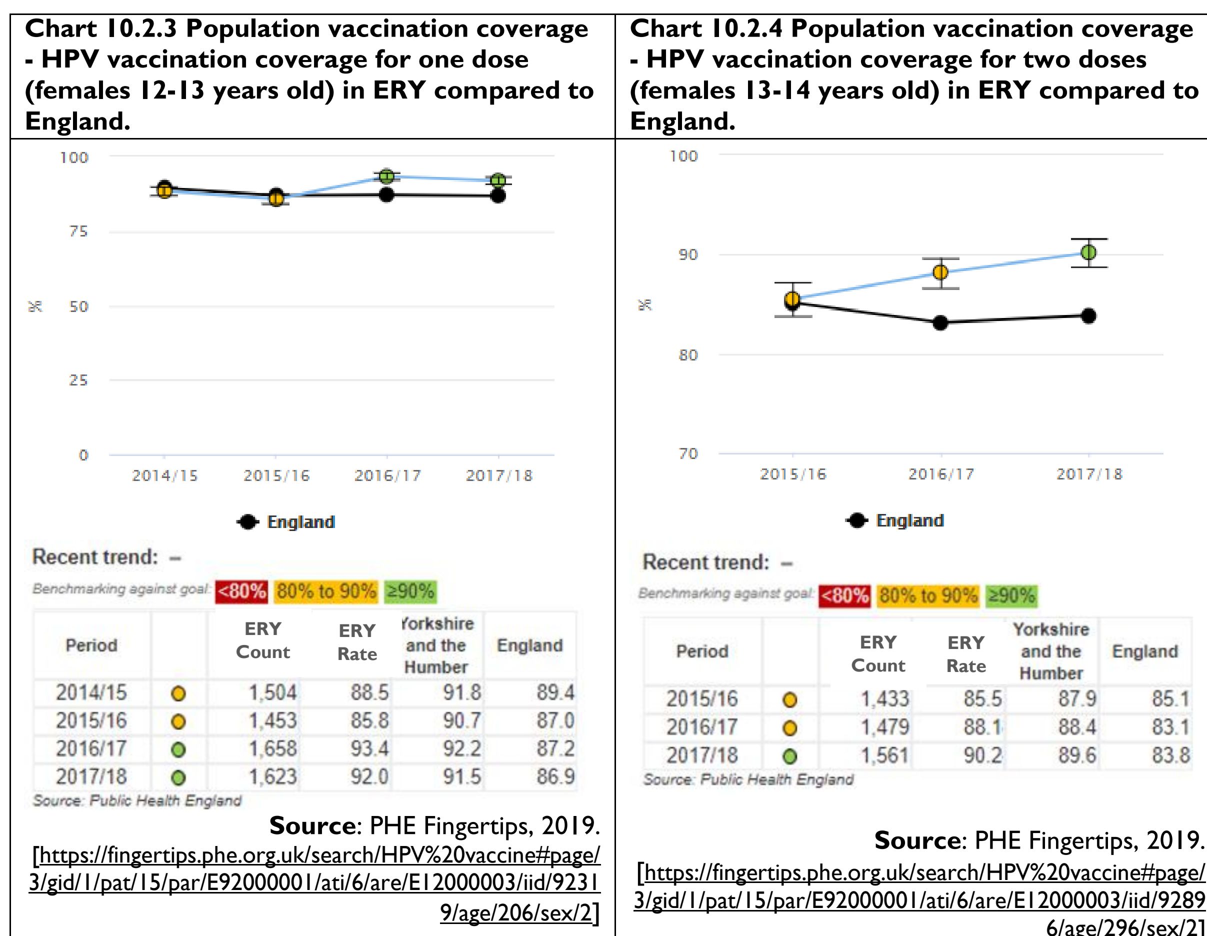


Chart 10.2.3 Population vaccination coverage - HPV vaccination coverage for one dose (females 12-13 years old) in ERY compared to England.

Period		ERY Count	ERY Rate	Yorkshire and the Humber	England
2014/15	●	1,504	88.5	91.8	89.4
2015/16	●	1,453	85.8	90.7	87.0
2016/17	●	1,658	93.4	92.2	87.2
2017/18	●	1,623	92.0	91.5	86.9

Source: Public Health England

Source: PHE Fingertips, 2019. [https://fingertips.phe.org.uk/search/HPV%20vaccine#page/3/gid/1/pat/15/par/E92000001/ati/6/are/E12000003/iid/92319/age/206/sex/2]

Chart 10.2.4 Population vaccination coverage - HPV vaccination coverage for two doses (females 13-14 years old) in ERY compared to England.

Period		ERY Count	ERY Rate	Yorkshire and the Humber	England
2015/16	●	1,433	85.5	87.9	85.1
2016/17	●	1,479	88.1	88.4	83.1
2017/18	●	1,561	90.2	89.6	83.8

Source: Public Health England

Source: PHE Fingertips, 2019. [https://fingertips.phe.org.uk/search/HPV%20vaccine#page/3/gid/1/pat/15/par/E92000001/ati/6/are/E12000003/iid/92896/age/296/sex/2]

Males are protected from HPV through herd protection. However, from 2019/2020, 12-13 year old boys will also become eligible for the vaccine. Likewise, men who have sex with men (MSM) are left unprotected by the female only vaccination. Therefore, since April 2018, MSM became eligible for the free HPV vaccination (up to and including aged 45 years) when visiting sexual health clinics and HIV clinics in England.

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Appendix 1 – Schools in ERY comparisons by number of pupils on roll, proportion of pupils from Hull, proportion of free-school meals and pupil premium. Schools are ordered alphabetically.

Nursery schools					
School Name	**Number of Children on Roll**	**Proportion of pupils from Hull**	**IMD Rank of School [Local IMD Quintile] 1 most deprived; 5 least deprived**	**FSM Eligible (%)**	**Proportion of pupil premiums (%)**
Beverley Manor Nursery	57	0%	3	0.0	0
Bridlington Nursery	88	0%	1 Most Deprived	0.0	0
Hedon Nursery School	54	0%	2	0.0	0
Hornsea Nursery School	59	0%	1 Most Deprived	0.0	0

Primary schools					
School Name	**Number of Children on Roll**	**Proportion of pupils from Hull**	**IMD Rank of School**	**FSM Eligible (%)**	**Proportion of pupil premiums (%)**
Acre Heads Primary School	401	7%	4	5.0	11.5
Airmyn Park Primary	109	0%	2	8.3	11.0
Aldbrough Primary School	135	0%	1	16.3	28.1
All Saints C E Junior	385	2%	3	16.6	26.5
All Saints C Of E Vc Infant School	318	2%	3	14.2	18.2
Anlaby Primary School	365	3%	2	14.2	22.5
Bacon Garth Primary School	235	0%	1	18.3	24.3
Barmby Moor Ce Primary School	109	0%	3	9.2	11.0
Barmby On The Marsh Primary	47	0%	4	2.1	19.1
Bay Primary School	407	0%	1	22.1	38.6
Beeford C E School	93	0%	2	8.6	17.2
Bempton Primary School	82	0%	3	17.1	24.4
Beswick And Watton School Ce (Vc) School	18	0%	2	22.2	22.2
Beverley Minster C.E. Primary	345	0%	3	9.0	14.5
Beverley St Mary's C E Primary	388	0%	5	10.1	17.3
Beverley St Nicholas Cp School	335	0%	4	26.9	32.2
Bilton Community Primary School	226	4%	4	4.4	15.9
Bishop Wilton Church Of England Voluntary Controlled Primary School	36	0%	2	2.8	16.7
Boothferry Primary	382	0%	2	20.2	24.9
Boynton Primary	65	0%	1	10.8	12.3
Brandesburton Primary School	163	0%	4	3.7	9.2
Brough Primary School	374	0%	4	6.1	8.3
Bubwith Primary School	137	0%	3	5.8	13.9
Bugthorpe C.E. Primary School	75	0%	2	0.0	4.0
Burlington Infants School	234	0%	1	35.5	38.9
Burlington Junior School	323	0%	1	34.1	41.5
Burstwick Community Primary School	140	0%	3	10.0	19.3
Burton Agnes C.E. (V.C.)	95	0%	1	16.8	12.6
Burton Pidsea Primary School	80	0%	4	8.8	15.0
Cherry Burton Ce School	176	0%	5	4.5	13.1

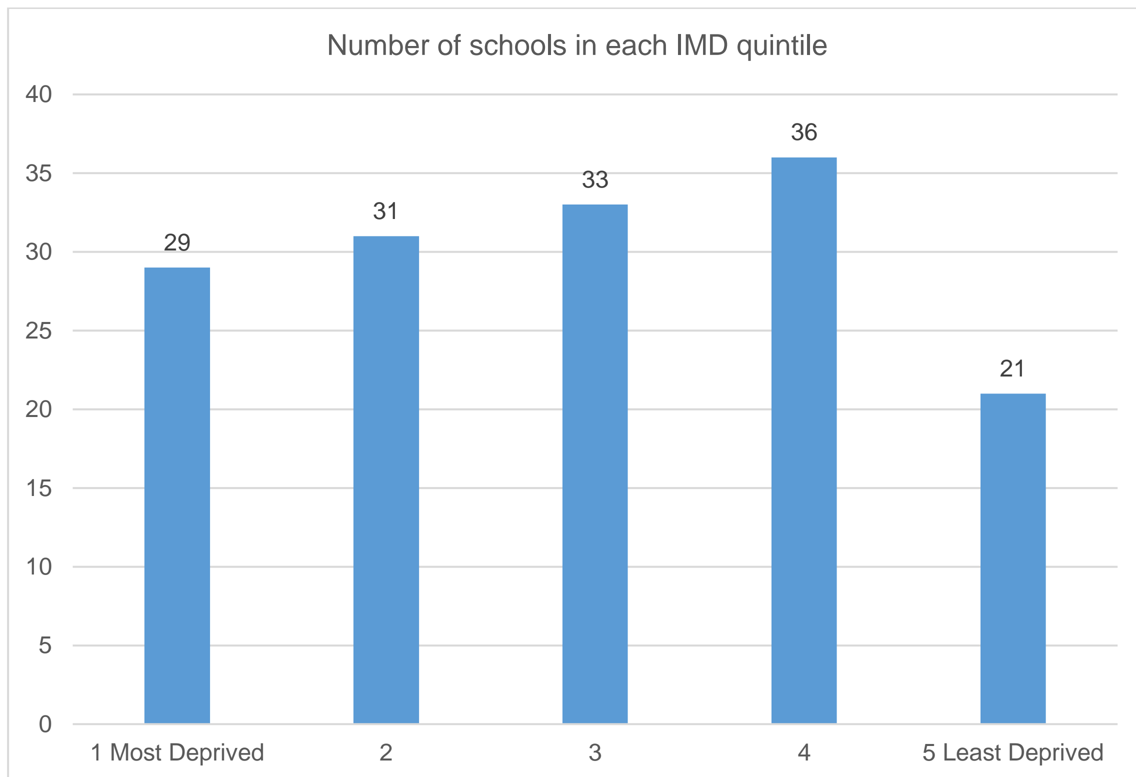
Cottingham Croxby	308	5%	2	13.6	14.3
Cowick C.E.Primary	110	0%	4	7.3	10.0
Driffield Ce(Vc) Infant School	186	0%	2	15.6	23.1
Driffield Junior School	494	0%	1	21.3	26.9
Driffield Northfield Infant School	152	0%	1	24.3	18.4
Dunswell Primary School	95	3%	3	7.4	15.8
Easington Ce Primary Academy	37	0%	1	35.1	43.2
Eastrington Primary School	110	0%	3	3.6	6.4
Elloughton Primary School	342	0%	5	2.3	4.7
Flamborough Ce Primary	105	0%	2	15.2	21.0
Garton On The Wolds Ce Primary	113	0%	1	8.0	18.6
Gilberdyke Primary School	244	0%	3	6.1	11.1
Hallgate Primary School	276	3%	4	15.6	21.4
Hedon Primary	181	0%	2	18.2	21.0
Hilderthorpe Primary School	372	0%	3	40.6	51.1
Holme On Spalding Moor C.P.	245	0%	3	9.8	14.3
Hook C.E.Primary School	209	0%	4	3.3	7.2
Hornsea Burton Primary School	64	0%	1	39.1	46.9
Hornsea Primary School	550	0%	1	17.8	24.2
Howden Church Of England Infant School	188	0%	4	4.3	8.0
Howden Junior School	204	0%	4	8.8	24.0
Hunsley Primary	118	0%	5	4.2	5.1
Hutton Cranswick C P School	185	0%	3	7.6	10.3
Inmans Primary School	398	0%	4	8.3	11.3
Keldmarsh Primary School	215	0%	3	6.0	9.3
Keyingham Primary School	218	0%	2	21.1	23.9
Kilham Ce Primary School	136	0%	2	19.1	20.6
Kingsway Primary School	481	0%	1	24.9	32.0
Kirk Ella St Andrews Primary School	506	1%	5	3.8	4.7
Leconfield Primary School	130	0%	5	10.0	48.5
Leven C. E. School	157	0%	5	7.6	16.6
Little Weighton, Rowley C.E.	65	0%	4	1.5	18.5
Lockington C.E. V.C.Primary School	35	0%	2	5.7	14.3
Market Weighton Infant School	254	0%	4	8.7	13.8
Marshlands Primary School	292	0%	1	28.4	34.6
Martongate Primary	421	0%	3	15.0	24.5
Melbourne Community Primary School	168	0%	3	4.2	7.1
Middleton-On-The-Wolds Church Of England Voluntary Controlled Primary School	70	0%	2	17.1	22.9
Molescroft Primary	416	0%	5	2.2	7.0
Mount Pleasant C.E. Junior	308	0%	3	12.3	22.1
Nafferton C P School	285	0%	4	9.8	20.7
New Pasture Lane C.P. School	249	0%	1	43.0	52.2
Newbald Primary School	95	0%	4	6.3	13.7
Newport Primary	128	0%	2	17.2	29.7
North Cave C.E.Primary	110	0%	4	4.5	7.3
North Ferriby C E School	274	0%	5	2.6	11.7
North Frodingham Primary	66	0%	2	16.7	16.7

Our Lady And Saint Peter Rc (Va) Primary School	200	0%	2	10.5	22.5
Parkside Primary School	574	0%	3	10.6	14.8
Patrington Primary School	222	0%	1	22.1	19.8
Paull Primary School	63	0%	1	11.1	17.5
Pocklington Ce (Vc) Infant	150	0%	4	13.3	16.7
Pocklington Community Junior	274	0%	4	11.7	22.3
Pollington-Balne Primary School	108	0%	3	2.8	6.5
Preston Primary School	197	0%	3	8.1	17.3
Quay Academy	368	0%	1	38.6	54.6
Rawcliffe Bridge Primary School	55	0%	2	14.5	21.8
Rawcliffe Primary School	103	0%	2	7.8	9.7
Reedness Primary School	34	0%	1	11.8	8.8
Riston C.E.	78	0%	3	9.0	11.5
Roos C.E.Primary School	107	0%	2	6.5	15.0
Sigglesthorne Church Of England Primary Academy	51	0%	2	17.6	33.3
Skidby C Of E Primary	71	0%	3	18.3	28.2
Skipsea County Primary	50	0%	1	42.0	46.0
Skirlaugh C.E. Primary School	143	0%	4	12.6	16.1
Sledmere C.Of E. School	48	0%	1	6.3	8.3
Snaith Primary School	343	0%	4	6.7	11.1
South Cave Ce School	282	0%	5	8.9	13.8
Springhead Primary School	211	1%	4	12.8	15.2
Sproatley Endowed School	130	0%	4	3.1	12.3
St John Of Beverley Roman Catholic Primary School, Beverley	172	0%	1	25.6	25.6
St Joseph's Catholic Primary School	110	0%	1	10.0	16.4
St Mary's Rc Primary School	89	0%	4	6.7	22.5
St.Martin's C.E. V.A. School	101	0%	3	4.0	4.0
St.Mary-St.Joseph R.C.	103	0%	4	1.0	1.9
Stamford Bridge Primary School	246	0%	5	4.5	7.3
Sutton-On-Derwent C.E. School	83	0%	5	0.0	4.8
Swanland Primary School	418	0%	5	2.9	4.8
Swinefleet Primary School	57	0%	1	21.1	24.6
Swinemoor Primary School	240	0%	3	26.3	39.2
Thorngumbald Primary School	230	0%	4	7.0	12.6
Tickton C.E. Primary	204	0%	4	4.9	11.8
Walkington	269	0%	5	3.0	7.8
Warter C.E.Primary School	162	0%	2	3.7	5.6
Wawne Primary School.	115	2%	2	17.4	27.0
Welton Primary School	382	0%	5	3.1	8.4
Westfield C.P. School	416	0%	4	3.6	8.9
Wetwang C.E. (V.C.) Primary	71	0%	2	26.8	29.6
Wilberfoss Ce Vc Primary School	234	0%	4	2.1	9.0
Willerby Carr Lane Primary School	414	2%	5	6.5	9.4
Withernsea Primary School	562	0%	2	35.1	45.7
Wold Newton Foundation School	95	0%	2	3.2	16.8
Woodmansey C. E. School	68	0%	3	11.8	16.2

Secondary schools					
School Name	**Number of Children on Roll**	**Proportion of pupils from Hull**	**IMD Rank of School**	**FSM Eligible (%)**	**Proportion of pupil premiums (%)**
Beverley Grammar School	820	1%	1%	5 Least Deprived	6.6
Beverley High School	868	1%	1%	1 Most Deprived	7.4
Bridlington School	989	0%	0%	1 Most Deprived	29.0
Cottingham High School And Sixth Form College	915	10%	10%	3	14.8
Driffield School And Sixth Form	1,357	0%	0%	4	12.0
Goole Academy	861	0%	0%	3	19.4
Headlands School	920	0%	0%	3	18.4
Holderness Academy And Sixth Form	1,287	8%	8%	3	10.6
Hornsea School And Language College	1,064	0%	0%	3	14.3
Howden School	692	0%	0%	3	9.4
Longcroft School	1,080	5%	5%	5 Least Deprived	10.6
South Hunsley School	2,164	1%	1%	5 Least Deprived	2.9
The Hessle Academy Community Trust	1,597	19.6%	19.6%	4	16.5
The Market Weighton School	496	0%	0%	4	10.5
The Snaith School	935	0%	0%	4	7.6
Withernsea High School	712	0%	0%	2	26.4
Woldgate School And Sixth Form College	1,085	0%	0%	4	4.0
Wolfreton School	1,499	14%	14%	5 Least Deprived	7.2

Special and Pupil Referral Units					
School Name	**Number of Children on Roll**	**Proportion of pupils from Hull**	**IMD Rank of School**	**FSM Eligible (%)**	**Proportion of pupil premiums (%)**
St. Anne's Community School	157	1%	5 Least Deprived	26.1	24.8
Riverside Area Special School	95	0%	2	31.6	43.2
The Hub School (Pupil referral unit)	55	0%	4	45.5	121.8
Kings Mill Special School	125	0%	2	38.4	35.2
Horton House	17	-	-	-	-

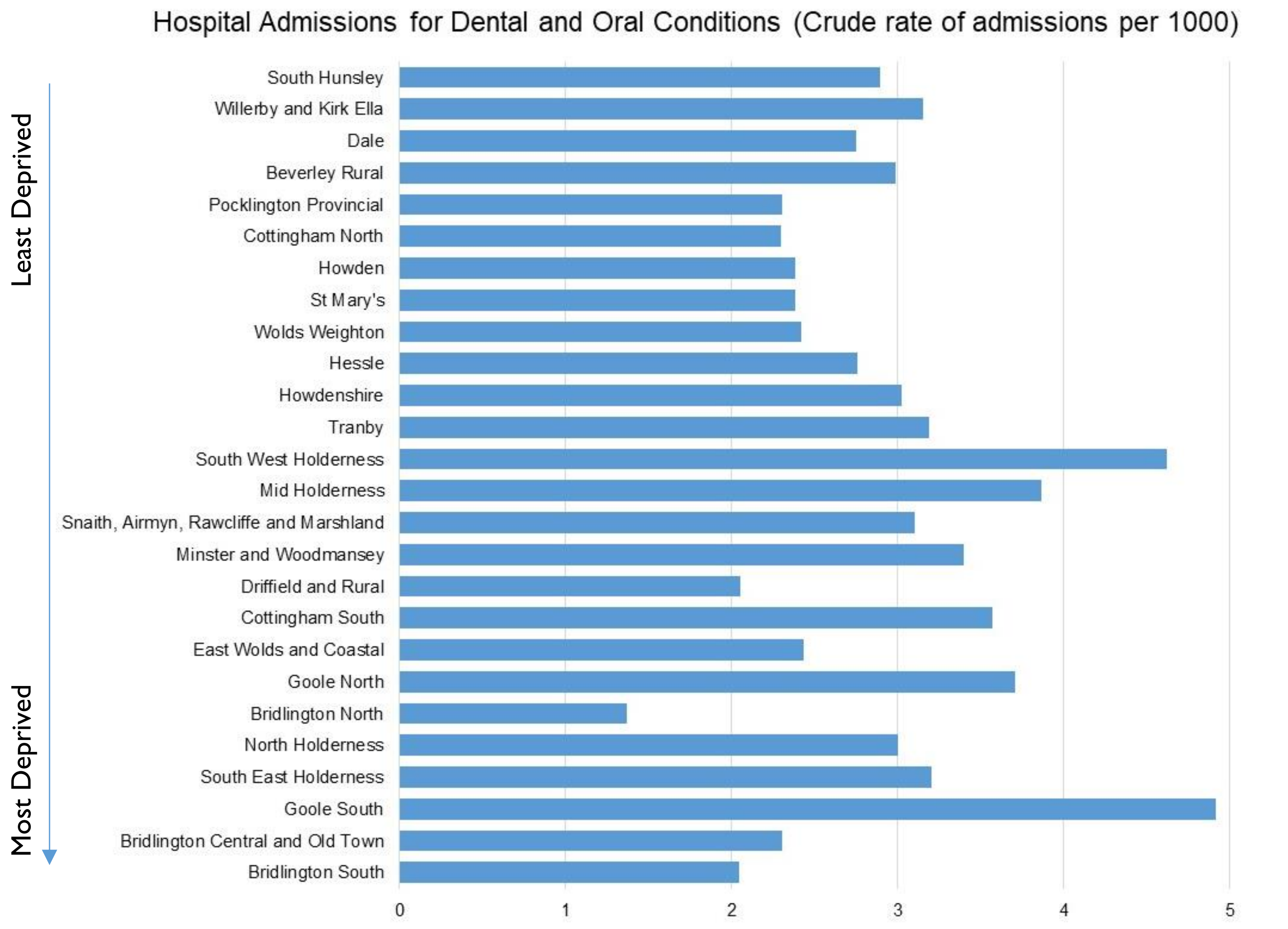
Appendix 2 Number of schools (council nurseries, primaries and secondary's) in each local IMD quintile.



Appendix 3 Number of dental practices per ward within the ERY.

Ward	2017 Mid-Year Estimated Population (All Ages) (ONS, 2015)	Number of Dental Practices
Beverley Rural	14,073	1
Bridlington Central and Old Town	10,913	1
Bridlington North	13,091	0
Bridlington South	14,602	5
Cottingham North	8,231	4
Cottingham South	9,133	0
Dale	17,898	4
Driffield and Rural	15,108	4
East Wolds and Coastal	14,378	0
Goole North	11,276	1
Goole South	10,825	3
Hessle	14,972	4
Howden	5,217	1
Howdenshire	15,313	0
Mid Holderness	13,714	1
Minster and Woodmansey	16,364	2
North Holderness	10,432	3
Pocklington Provincial	16,763	3
Snaith, Airmyn, Rawcliffe and Marshland	9,705	0
South East Holderness	15,054	2
South Hunsley	10,246	0
South West Holderness	14,637	1
St Mary's	15,983	4
Tranby	9,958	0
Willerby and Kirk Ella	13,514	3
Wolds Weighton	16,661	3
ERY	338,061	50

Appendix 4 Hospital admissions for dental and oral health conditions by ward, ranked from least to most deprived.



Appendix 5 Age breakdown of pupils participating in the Brush Bus programme at ERY targeted schools.

Venue	**Number of children on roll**	**Early Years Foundation Stage (0-5 years)**	**Key Stage 1 (ages 5-7)**	**Key Stage 2 (ages 7-11)**	**Key Stage 3 (ages 11-14)**
Bay Primary School	407	60			
Boothferry Primary	382	110			
Boynton Primary	65	15			
Burton Agnes C.E. (V.C.)	95	30			
Christ Church Nursery/Pre School	29	40			
Kings Mill Special School	125	12	21	45	20
Kingsway Childrens Centre	Unknown	40			
Marshlands Primary School	292	44			
New Pasture Lane C.P. Pre-School	36	30			
New Pasture Lane C.P. School	249	70			
Nursery Rhymes	Unknown	50			
Patrington C.E. Primary Academy	222	80	30		
Quay Academy	368		60		
Riverside Area Special School	95	5	5	10	75
Roundabout Nursery	63	40			
School House Nursery	92	30			
Skipsea Primary	50	10	25		
St Anne's Community Special School	157	40	15	15	50
St Joseph's Catholic Primary	110	15	15		
St. John Of Beverley RC Primary School	172	20	25		
Swinefleet Primary School	57	10	0		
Teeny Tots Nursery	43	40			
Withernsea Day Nursery	43	35			
Withernsea Primary School	562		90		
Total	**3714**	**826**	**286**	**70**	**145**

Appendix 6 Full list of targeted settings from April 2019.

Venue	Targeted Brush Bus School	Participating in Brush Bus scheme (Y or N)
Anlaby Primary School	Yes	No
Bacon Garth Primary School	Yes	No
Bay Primary School	Yes	Yes
Boothferry Primary	Yes	Yes
Boynton Primary	Yes	Yes
Burlington Infants School	Yes	No
Burton Agnes C.E. (V.C.)	Yes	Yes
Driffield Ce(Vc) Infant School	Yes	No
Easington C.E. Academy	Yes	Yes
Hornsea Nursery	Yes	No
Horton Hill Top Special School	Yes	Yes
Kings Mill Special School	Yes	Yes
Kingsway Childrens Centre	Yes	Yes
Kingsway Primary School	Yes	No
Manor Rd Nursery	Yes	No
Marshlands Primary School	Yes	Yes
New Pasture Lane C.P. School	Yes	Yes
New Pasture Lane C.P. Pre-School	Yes	Yes
Nursery Rhymes	Yes	Yes
Our Lady & St Peter Rc (Va) Primary School	Yes	Yes
Paull Primary School	Yes	Yes
Quay Academy	Yes	Yes
Rainbow Nursery	Yes	No
Rawcliffe In Snaith Bridge	Yes	Yes
Reedness Primary School	Yes	No
Riverside Area Special School	Yes	Yes
Roundabout Nursery	Yes	Yes
School House Nursery	Yes	Yes
Skipsea Primary	Yes	Yes
St Annes Community Special School	Yes	Yes
St Joseph'S Catholic Primary	Yes	Yes
St. John Of Beverley Rc Primary School	Yes	Yes
Swinefleet Primary School	Yes	Yes
Teeny Tots Nursery	Yes	Yes
Withernsea Day Nursery	Yes	Yes
Withernsea Primary School	Yes	Yes