Rapid Oral Health Needs Assessment

Produced by Public Health at Lincolnshire County Council with support from the Lincolnshire Oral Health Alliance Group.

November 2022
Version 2.0

Lincolnshire
COUNTY COUNCIL
Working for a better future

This version of the Rapid Oral Health Needs Assessment replaces Version 1.0 (September 2022). The main update is in relation to Table 4 and Table 7 (National Dental Epidemiology Programme 5-Year-old survey data) and some of the narrative linked to these Tables in Section 7.1.

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1. Executive Summary

Oral health is essential for general health and wellbeing, and good oral health is not equal across the population, with there being significant health inequalities. Poor oral health can have a negative impact throughout life, resulting in difficulties with eating, sleeping and socialising. Data from the Global Burden of Disease (GBD) shows 'oral disorders' to be the tenth cause of Years Living with Disability (YLD) in Lincolnshire.

It is recognised that the data on the oral health of the population is quite limited and what is available, for example from population surveys, is quite dated. The National Dental Epidemiology Programme (NDEP) surveys provide information on the oral health of the Lincolnshire population and the health inequalities that exist. With the exception of Lincoln, there is an East and West divide of 5-year-olds experiencing dental decay, with the highest levels of decay in Boston. As further NDEP surveys are carried out, the data will be updated and reflected in updated versions of this rapid oral health needs assessment (ROHNA) and the Lincolnshire Joint Strategic Needs Assessment (JSNA) oral health topic.

Within Lincolnshire, a wide range of preventative interventions are taking place to improve oral health. This is across the three stages of prevention (primary, secondary and tertiary) and a range of interventions, for example, behaviour changes that support oral health. Water fluoridation is one of a range of interventions available to improve oral health, and in Lincolnshire, a third of the population are supplied with artificially fluoridated water.

In England, there is no system of patient registration with a dental practice, and people are able to choose to attend any dental practice that has the capacity to accept them. In some parts of Lincolnshire finding a dental practice with NHS capacity is difficult. The COVID-19 pandemic has had a considerable impact on dental services and dental access, and the long-term impact of the pandemic on oral health is yet unknown. NHS dental access data provides some indication on how the pandemic has impacted on people's ability to access a dentist and further information is provided in this report.

In April 2023, the Lincolnshire Integrated Care Board (ICB) will take on delegated responsibility for dental services and Lincolnshire County Council (LCC) will maintain its responsibility for oral health promotion. The Lincolnshire Oral Health Alliance Group (OHAG) will continue to coordinate oral health improvement work across the Lincolnshire system.

2. Scope of the Rapid Oral Health Needs Assessment

This ROHNA brings together key information and data to show the current oral health situation in Lincolnshire to inform the Lincolnshire JSNA oral health topic and the priorities of the Lincolnshire OHAG.

It uses a range of data, for example, epidemiological data and service activity. It also provides information on some of the key national resources to inform effective oral health interventions. The data also includes information on dental services and some feedback on people's experiences.

It should be noted that this is a rapid assessment designed to take a snapshot of current oral health needs in Lincolnshire and not a full Health Needs Assessment that uses standardised methodology. We have not collected primary data and instead the assessment relies wholly on secondary data. There are also elements that might appear in a full Oral Health Needs Assessment that are not included here, for example information on orthodontic services. Additionally, understanding of patient experience is drawn from the work of Healthwatch Lincolnshire.

It must be noted the impact that the COVID-19 pandemic has had on dental service provision and access of which the long-term impact on oral health is as yet unknown. This ROHNA is limited what it can evidence in relation to this, however, the data will continually be reviewed, to be able to assess the impact of the pandemic on people's oral health.

The document has been developed through liaison with the Lincolnshire OHAG members.

3. Introduction

Oral health is essential for general health and wellbeing, and improving oral health is a national and local public health priority. The World Health Organisation (WHO) defines oral health as a key indicator of overall health, well-being, and quality of life. It encompasses a range of diseases and conditions that include dental caries, periodontal (gum) disease, tooth loss, oral cancer, dental trauma, infections of the mouth and face, and birth defects such as cleft lip and palate[1].

There have been many national improvements in oral health in recent years, however, there remains significant health inequalities. Most people are at risk of developing some oral disease during their lifetime, with the most common being dental caries and periodontal (gum) diseases, oral cancer being the most serious, and tooth wear an increasing concern. The impact of oral disease, particularly dental caries, includes pain, days lost from work and school, and general impacts on people's quality of life.

The Inequalities in Oral Health in England Report[2] identified that poor oral health is almost entirely preventable and despite good progress over the last few decades, oral health inequalities remain a significant public health priority in England.

Some groups of the population are particularly vulnerable to experiencing worse oral health than the general population, for example, people who are homeless, in secure settings and travellers. The prevalence of dental caries is linked with social and economic circumstances, and ethnicity, with the prevalence being higher in some ethnic groups. Tooth decay is the most common oral disease affecting children and young people in England; there are significant inequalities with children from the most deprived areas being particularly impacted.

There are a wide range of risk factors associated with oral diseases, for example diet, poor oral hygiene, smoking and alcohol use. Effective self-care and professional support are important for good oral health.

Since 2013 the responsibility for oral health improvement has been with Local Authorities, and NHS England and Improvement (NHSEI) is responsible for commissioning dental services. The newly formed ICBs are expected to take on responsibility for dental services from April 2023. LCC has responsibility for oral health improvement, focussing on universal and targeted interventions to promote oral health across the population and to reduced oral health inequalities that exist across the County.

4. Oral Health - National and Local Context

4.1. National context

The Health and Social Care Act (2012) sets out the commissioning framework for health, social care, and public health in England. Since 2013 the responsibility for oral health improvement has been with Local Authorities and the responsibility for commissioning dental services with NHSEI. The Health and Care Act 2022 has brought changes to the latter.

The Health and Care Act 2022 confirmed the establishment of statutory Integrated Care Systems (ICSs), which have two functions. One of which is an Integrated Care Board (ICB) bringing the NHS together locally to improve population health and care, and having responsibility for those functions performed by the previous Clinical Commissioning Groups (CCGs). The other function is an Integrated Care Partnership (ICP) which is a joint committee of organisations and representatives concerned with improving the care, health, and wellbeing of the population, and responsible for preparing an Integrated Care Strategy for the ICS footprint. ICBs will take on delegated responsibility for dental services by April 2023. The NHS England Midlands Region Dental Strategy 2022-2024 has been prepared to aid Integrated Care Systems in understanding the common issues relating to dental commissioning[3].

The NHS Outcomes Framework (NHSOF)[4] and the Public Health Outcome Framework (PHOF)[5] have a number of indicators that relate to oral health, for example:

- Under 75 mortality from cancer (NHSOF, PHOF)
- Tooth extractions due to decay for children (NHSOF)
- Patient experience of NHS dental services (NHSOF)
- Access to NHS dental services (NHSOF)
- 5-year-olds with tooth decay (PHOF)
- Smoking prevalence (PHOF)

Many of the risk factors for general health conditions also affect oral health, for example, poor diet, smoking and alcohol misuse, and therefore there is a strong link with many other Local Authority public health responsibilities.

Oral health is a key part of the NHS Long Term Plan[6]. The Plan has a large focus on prevention and health inequalities, with specific actions on factors that impact on oral health, for example, smoking and alcohol. The Plan sets out progress on care quality and outcomes with many issues relevant to oral health, for example ‘a strong start in life for children and young people’, ‘better care for major health conditions’, which includes cancer. The Plan commits to rolling out the Enhanced Health in Care Homes (EHCH) model across England by 2024. This model moves towards proactive care that is centred on the needs of individual residents, their families and

care home staff. Oral health is one of the areas in the framework, which includes best practice.

Delivering Better Oral Health: An Evidence-Based Toolkit for Prevention[7] sets out a consistent UK wide approach to prevention of oral diseases. This toolkit provides evidence-based interventions on a wide range of oral health issues, for example, the prevention of dental caries in children and adults, prevention of oral cancers and prevention of tooth wear.

There are various National Institute for Health and Care Excellence (NICE)[8] guidelines and quality standards in relation to oral health, for example, oral health for adults in care homes and oral health promotion in the community which sets out a broad range of recommendations.

Core20PLUS5[9] is a national approach (led by NHSEI) to support the reduction of health inequalities at both national and system level. The 'Core20' refers to the most deprived 20% of the national population as identified by the national Index of Multiple Deprivation (IMD). The 'PLUS' refers to ICS determined population groups experiencing poorer than average health access, experience and or outcomes, but not captured on the Core20 alone, for example coastal communities and people who are homelessness. The 'five' refers to the five clinical areas of focus. It will be important for this framework to be used in the oral health work, given the health inequalities that exist.

4.2. Local Context

The Lincolnshire Health and Wellbeing Board has responsibility for producing a JSNA and Health and Wellbeing Strategy. The current Lincolnshire JSNA[10] is made up of 36 topics, grouped under six theme areas. Oral health is one of the topics. The Joint Health and Wellbeing Strategy for Lincolnshire[11] has a number of aims, themes and priorities which are relevant to oral health. The strategy aims to focus on prevention and early intervention, and to tackle inequalities and equitable provision of services.

The Lincolnshire ICS is coterminous with the previous Lincolnshire CCG boundary and the Lincolnshire ICB and ICP was established on 1st July 2022. The Lincolnshire ICB will take on delegated responsibility for dental services and LCC will maintain its responsibility for oral health improvement. The Lincolnshire OHAG coordinates oral health improvement work across the Lincolnshire system.

5. Oral Health – Key Preventative Interventions

As highlighted in ‘Delivering Better Oral Health: An Evidence-Based Toolkit for Prevention', given the right circumstances, most oral diseases can be prevented or managed by health behaviours, such as eating a balanced diet and good oral hygiene. Table 1 outlines some of the key preventative interventions included in the toolkit.

Table 1: Key Preventative Interventions

Behaviour Change	The toolkit highlights oral health behaviours that dental professionals may need to support their patients to change through brief interventions, for example improving oral hygiene, reducing sugar intake, and stopping smoking.
Oral Hygiene	Oral hygiene practices include toothbrushing and the use of other aids for cleaning teeth. Toothbrushing is important throughout life and the early introduction to the habit of toothbrushing is important. Children’s teeth should be brushed as soon as they erupt. For caries prevention, the use of fluoride in toothpaste is the most important aspect of brushing. Frequency of brushing is important, and it should occur twice daily as a minimum.
Fluoride	Fluorides are widely found in nature, in some products and in some natural water supplies. The link between fluoride in public water supplies and reduced levels of dental caries is well supported. Fluoride varnish is one of the best options for increasing the availability of topical fluoride regardless of the levels of fluoride in any water supply. This should happen when a child visits a dental surgery and is strongly recommended.
Healthier Eating	A healthy diet is important for oral and general health. Sugar intake and the frequency of intake of sugars is particularly relevant for dental caries. It is recommended to prevent tooth decay to minimise the amount and frequency of consumption of sugar-containing foods and drinks and to avoid sugar-containing foods and drinks at bedtime.
Smoking and Tobacco Use	Smoked tobacco presents a major risk to oral health as well as general health. The most significant risk is for oral cancer, and it is also the most common risk factor for periodontal disease.
Alcohol	The UK Chief Medical Officers advise that adults should not regularly drink more than 14 units of alcohol per week. Alcohol adversely affects health in a range of ways and there is a significantly increased risk of oral cancers among drinkers, particularly when combined with smoking or any form of tobacco use.

6. Demographic Overview of Lincolnshire and Implications for Oral Health

To best understand the oral health in Lincolnshire, it is important to understand the demographic makeup and how this could have an impact on people's oral health. Understanding these population dynamics is important because they provide unique challenges to planning and providing services.

Lincolnshire is the fourth largest county in England. It is a sparsely populated and predominately rural county covering an area of 5,921 sq. km. The county has seven districts: Boston, East Lindsey, Lincoln, North Kesteven, South Holland, South Kesteven and West Lindsey. There are no motorways, little mileage of dual carriageway and 80km of North Sea coastline. Coastal communities mean there is a seasonal influx of visitors in the summer months, while the Universities in the city of Lincoln bring fluctuations in student population during term time. There are significant social and economic disparities between rural, coastal, and urban areas of Lincolnshire.

6.1. Lincolnshire Population

The latest Office for National Statistics (ONS) population figures for 2020 show that Lincolnshire has an estimated resident population of 766,300 with 49% males and 51% females. Between 2010 and 2020, Lincolnshire’s population has increased by 7.7%, which is lower than the growth seen in the East Midlands (8.0%) and higher than England (7.4%).

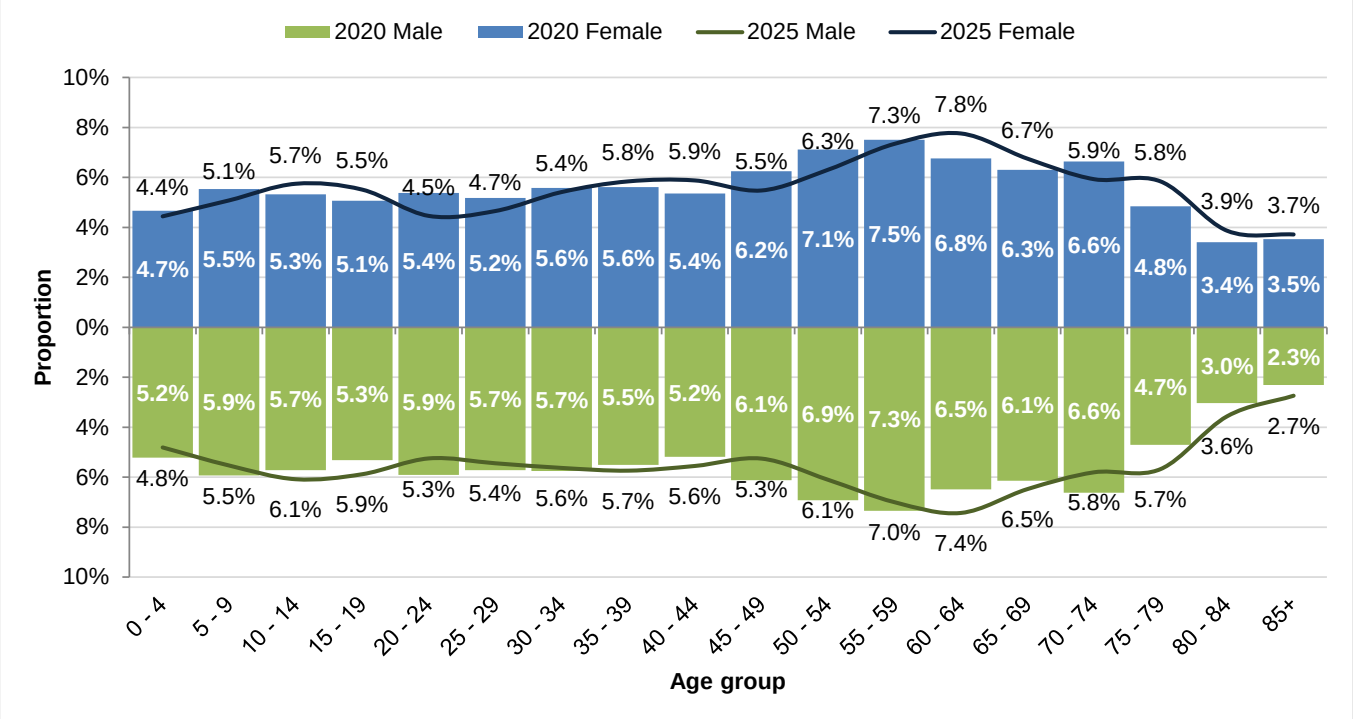
In addition, 2018-based ONS population projections show that Boston is expected to see the greatest population increase by 2025 (5.5%), followed by East Lindsey (4.6%) and North Kesteven (4.5%). In contrast, Lincoln is projected to see no change in population by 2025. For Lincolnshire, the expected overall growth is 3.4%. Table 2 shows the latest population estimates and projections for Lincolnshire and its districts. Figure 1 shows the estimated population and projected increases by age and sex.

Table 2: Estimated population (2020) and projected increase by 2025, by district

Area	Mid-2020	Male	Female	Projected increase by 2025
Boston	70,800	50.0%	50.0%	5.5%
East Lindsey	142,000	48.8%	51.2%	4.6%
Lincoln	100,000	50.0%	50.0%	0.0%
North Kesteven	118,100	48.8%	51.2%	4.5%
South Holland	95,900	49.0%	51.0%	4.3%
South Kesteven	143,200	48.3%	51.7%	2.7%
West Lindsey	96,200	49.1%	50.9%	2.1%
Lincolnshire	**766,300**	**49.0%**	**51.0%**	**3.4%**
England	**56,550,100**	**49.5%**	**50.5%**	**2.7%**

Source: ONS mid-year population estimates (2020) and 2018-based population projections, via NOMIS

Figure 1: Estimated population (2020) and projected increase by 2025, by age group



Source: ONS mid-year population estimates (2020) and 2018-based population projections, via NOMIS

6.2. Deprivation

The 2019 Index of Multiple Deprivation (IMD) demonstrates overall deprivation and ranks Lincolnshire 91st out of 151 upper-tier Local Authorities in England, where 1st is the most deprived. Levels of deprivation vary considerably across the county, influencing health needs and services required by the population.

A Lincolnshire Research Observatory (LRO) Report[12] provides information on 2019 IMD deprivation at Local Authority district level, ranked across all 326 districts in the country, with 1 being the most deprived and 326 the least deprived. Table 4 shows the rank for each of the Lincolnshire districts and the percentage of people living in the most deprived areas (top 30% most deprived areas in the Country), with East Lindsey and Lincoln being the highest rank.

Table 3: Summary of overall deprivation in Lincolnshire, by district: 2019

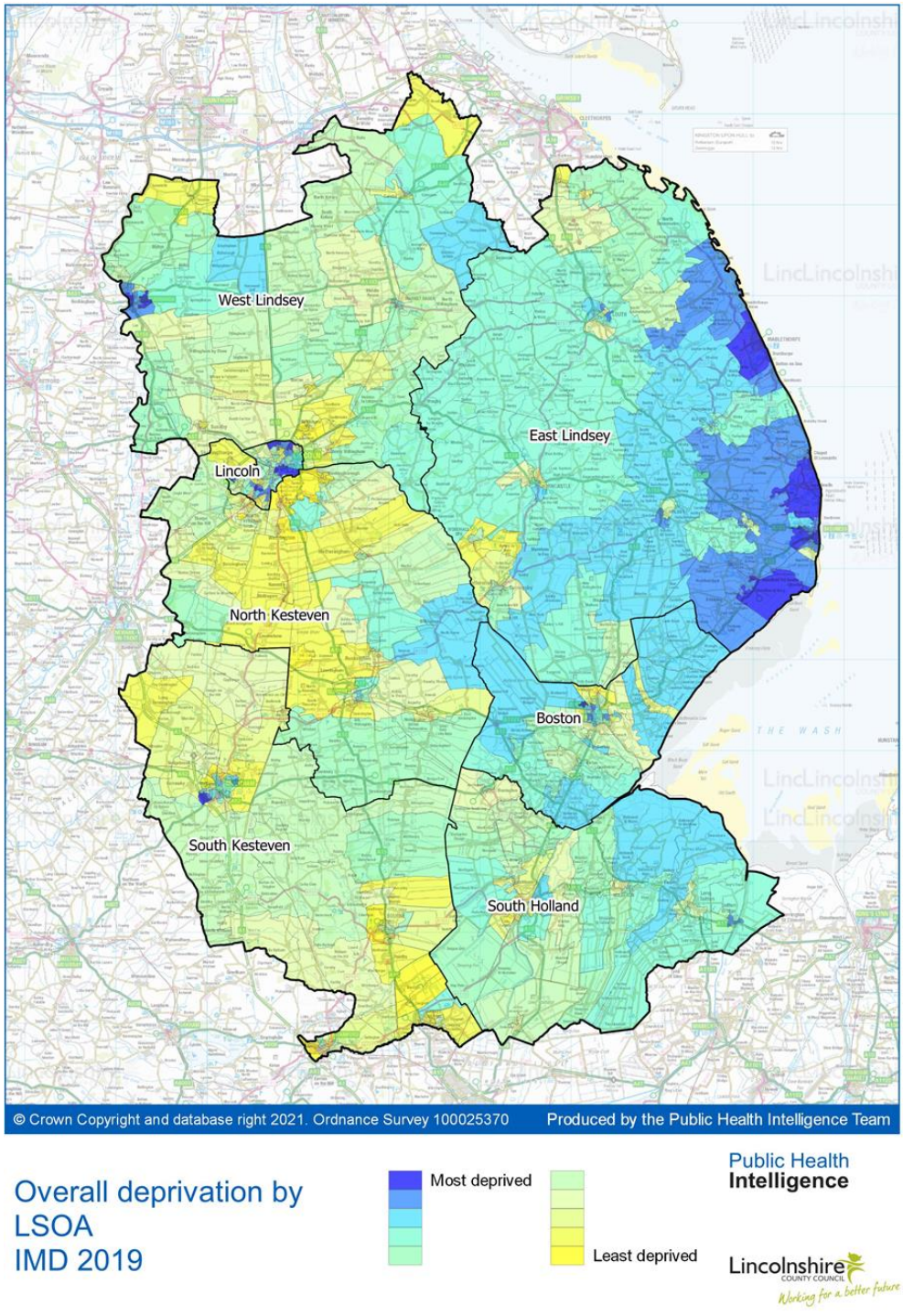
District	National rank (1 is most deprived)	Living in top 30% most deprived areas
Boston	85	15.5%
East Lindsey	30	34.0%
Lincoln	68	29.2%
North Kesteven	268	0.7%
South Holland	144	2.1%
South Kesteven	234	3.5%
West Lindsey	146	16.1%

Source: DCLG, Indices of Multiple Deprivation 2019

As shown in Figure 2, the Lincolnshire coastline, particularly the towns of Skegness and Mablethorpe, are amongst the most deprived 10% of neighbourhoods in the country. The general pattern of deprivation across Lincolnshire is in line with the national trend in that urban and coastal areas show higher levels of deprivation than other areas.

There are many population groups in Lincolnshire that are vulnerable to poor oral health, for example, adults in nursing/residential homes, homeless people and the gypsy and traveller population. The Lincolnshire JSNA provides further detailed information on these populations.

Figure 2: Overall deprivation in Lincolnshire, 2019



7. Oral Health in Lincolnshire

This ROHNA provides information on the oral health of the people in Lincolnshire using the most recent available data. Nationally, there are a number of surveys undertaken to identify and measure levels of oral health for both child and adult population, although the data is quite limited and, in some cases, dated.

The Global Burden of Disease (GBD) was created in 1991 and aims to measure and compare outcome data across diseases using a measure known as Disability Adjusted Life Years (DALYs). DALYs are calculated by adding together the number of years lost due to premature mortality (YLL) and the number of years lived with disability (YLD), using a standard life expectancy age.

The 2019 GBD data shows 'oral disorders' to be the tenth most common cause of YLD in Lincolnshire for all persons, and ninth among males. Oral disorders comprise of caries of deciduous and permanent teeth, chronic periodontal diseases, edentulism (total tooth loss), and other oral disorders (a heterogeneous group including a variety of tooth, tongue, and jaw disorders and malformations not included in the other causes)[13].

Figure 3: Total YLDs in Lincolnshire (2019), by gender: Top 10 causes

MALES	FEMALES	PERSONS
1. LOW BACK PAIN	1. LOW BACK PAIN	1. LOW BACK PAIN
2. DIABETES MELLITUS	2. DIABETES MELLITUS	2. DIABETES MELLITUS
3. AGE-RELATED AND OTHER HEARING LOSS	3. DEPRESSIVE DISORDERS	3. DEPRESSIVE DISORDERS
4. CHRONIC OBSTRUCTIVE PULMONARY DISEASE	4. OSTEOARTHRITIS	4. AGE-RELATED AND OTHER HEARING LOSS
5. DEPRESSIVE DISORDERS	5. AGE-RELATED AND OTHER HEARING LOSS	5. OSTEOARTHRITIS
6. FALLS	6. HEADACHE DISORDERS	6. FALLS
7. OSTEOARTHRITIS	7. FALLS	7. CHRONIC OBSTRUCTIVE PULMONARY DISEASE
8. NECK PAIN	8. NECK PAIN	8. NECK PAIN
9. ORAL DISORDERS	9. GYNECOLOGICAL DISEASES	9. HEADACHE DISORDERS
10. OTHER MUSCULOSKELETAL DISORDERS	10. CHRONIC OBSTRUCTIVE PULMONARY DISEASE	10. ORAL DISORDERS

Source: The Institute for Health Metrics and Evaluation (IHME)

7.1. Oral Health Amongst Children

The prevalence of dental caries in children in the UK has reduced dramatically over recent decades, however, it remains prevalent and there are significant inequalities.

Since 1985, standardised and coordinated surveys of child dental health have been conducted across the UK. These have produced robust, comparable information for use at regional and local government level and for varying health geographies. These surveys are part of the National Dental Epidemiology Programme (NDEP). The 2021/22 NDEP survey for 5-year-olds is currently being undertaken and the results will be available in 2023. This ROHNA uses the 2019 survey data.

In addition to the 5-year-old survey, an oral health survey was carried out amongst 3-year-olds in 2019/20. Data collection was curtailed due to COVID-19, which means that some upper tier and lower-tier Local Authorities were unable to return useable data. Unfortunately, very few areas reached the minimum sample size of 250 children. Within this report, information is provided on the data that is available for Lincolnshire, however, making comparisons with other areas should be taken with caution.

7.1.1. National Dental Epidemiology Programme Data

In Lincolnshire, 2,115 children were examined in the 2019 5-year-old NDEP survey (71% of the sample), and the rates of tooth decay varied across the Lincolnshire districts (enhanced sampling has taken place in Boston since the 2016/17 survey). Table 4 shows that Boston (516 children examined) has the highest proportion of 5-year-olds with dental decay (39.3%), which is significantly higher than the other districts, Lincolnshire (25.5%) and England (23.4%). South Holland, East Lindsey and Lincoln also have high proportions; however, these are comparable to Lincolnshire and the national figure. South Kesteven and North Kesteven have the lowest proportions and are significantly lower than England.

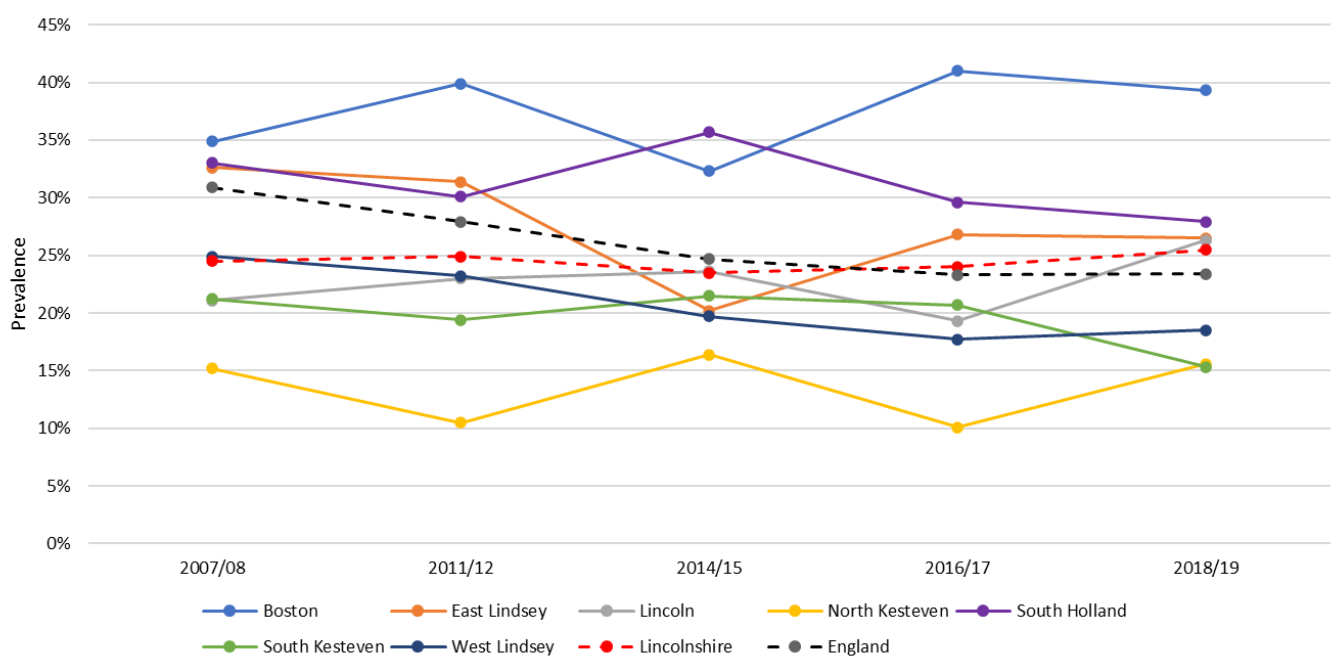
Table 4: Summary of NDEP 5-year-old survey (2019) in Lincolnshire

Area	Number examined	Dental experience	Number of decayed, missing or filled teeth	% with 1 or more decayed teeth	% with 1 or more decayed teeth extracted
Boston	516	39.3%	1.58	35.8%	2.0%
East Lindsey	241	26.5%	0.70	24.6%	0.0%
Lincoln	316	26.3%	0.93	24.8%	1.3%
North Kesteven	247	15.6%	0.35	14.1%	1.2%
South Holland	273	27.9%	1.03	25.8%	2.5%
South Kesteven	273	15.3%	0.48	14.2%	0.7%
West Lindsey	249	18.5%	0.50	15.8%	0.9%
Lincolnshire	**2,115**	**25.5%**	**0.87**	**23.3%**	**1.4%**
England	**78,767**	**23.4%**	**0.80**	**20.4%**	**2.2%**

Source: NDEP

Figure 4 shows the prevalence of dental decay in 5-year-olds between 2007/08-2018/19 across the Lincolnshire districts, with Boston being consistently higher throughout this period and North Kesteven lowest.

Figure 4: Prevalence of dental decay in 5-year-olds in Lincolnshire Local Authorities, 2007/08 – 2018/19



Source: NDEP

Public Health England (now Office for Health Improvement and Disparities –OHID) Oral Health Profile for Lincolnshire focuses on the oral health of 5-year-olds, using the 2019 NDEP data and provides some ward level information for a number of districts. Within Boston, the highest level of experience of dental decay is clustered

around Fenside (60%), Skirbeck (50%), Trinity (51%) and Witham (60%) wards. In Lincoln, the highest rates are in Park (45%) and Glebe (40%) wards. The profile shows the prevalence of experience of dental decay by IMD quintiles, with the most deprived areas having the highest level of dental decay.

Whilst not specific to Lincolnshire, the PHE[14] report on the variations in prevalence and severity of dental decay, showed that experience of dental decay was higher in children from more deprived areas (34.3%) than in children from less deprived areas (13.7%). There was variation in prevalence of experience of dental decay by ethnic group and this was significantly higher in the 'Other Ethnic Groups' (44.3%) and the Asian/Asian British ethnic group (36.9%) than other ethnic groups.

In addition to the 5-year-old survey, an oral health survey for 3-year-olds was carried out in 2020 as part of the NDEP, however, as highlighted above, this was impacted by COVID-19. Data was collected in East Lindsey, Boston and North Kesteven.

Table 5 shows that 571 3-year-olds in Lincolnshire were examined, of which 6.4% had some decay experience, and 4.6% had one or more decayed teeth. The average number of decayed, missing or filled teeth was 0.2, and 1% of children examined had one or more teeth extracted due to decay. Of the districts that participated, Boston has significantly worse oral health outcomes compared to East Lindsey and North Kesteven. Results for Lincolnshire are comparatively lower than those seen nationally; however, the PHE report[15] outlines that caution should be taken with the data, given the impact that COVID-19 had on this, and the number of children examined.

Table 5: Summary of NDEP 3-year-old survey (2020) in Lincolnshire

Area	Number examined	Dental experience	Number of decayed, missing or filled teeth	% with 1 or more decayed teeth	% with 1 or more decayed teeth extracted
Boston	199	13.5%	0.46	9.7%	2.6%
East Lindsey	163	2.7%	0.11	2.1%	0.6%
Lincoln	*0*	*0.0%*	*0.00*	*0.0%*	*0.0%*
North Kesteven	180	3.8%	0.11	2.5%	0.0%
South Holland	*0*	*0.0%*	*0.00*	*0.0%*	*0.0%*
South Kesteven	*0*	*0.0%*	*0.00*	*0.0%*	*0.0%*
West Lindsey	*0*	*0.0%*	*0.00*	*0.0%*	*0.0%*
Lincolnshire	**571**	**6.4%**	**0.20**	**4.6%**	**1.0%**
England	**19,479**	**10.7%**	**0.30**	**9.6%**	**0.8%**

Source: NDEP

7.1.2. Dental Extractions amongst Children

Some children have dental extractions carried out in hospital under general anaesthetic, for example where tolerance for extraction under local anaesthetic may be low. There are three published indicators for child hospital admissions for dental caries and extractions. All hospital data are derived from Hospital Episode Statistics (HES), provided by NHS Digital, and are identified as finished consultant episodes (FCEs) for all persons (where the primary operation codes F09 or F10 and primary diagnosis codes K021, K025, K028, K029, K040, K045, K046 or K047). All figures are age standardised using the latest mid-year population estimates to provide an admission rate per 100,000 population.

The indicators are:

- OHID Fingertips publish rates for hospital admissions due to dental caries in 0–5-year-olds.
- Indicator 3.7.ii within the NHS Outcomes Framework contains figures for hospital tooth extractions due to decay in children under 10 years.
- OHID Dental Public Health Team publish figures on FCEs for 0–19-year-olds for hospital dental extractions.

Table 6 shows OHID published data for hospital admissions due to dental caries in 0–5-year-olds, with the rates in Lincolnshire being significantly lower than both the regional and national rates. The Lincolnshire rate for 2018/19-20/21 was 24.6 per 100,000 population (number=35), which is much lower than the East Midlands (88.8 per 100,000) and England (220.8 per 100,000) rate. Trend data also reveals that admission rates for dental caries have decreased since 2015/16-17/18, which mirrors the pattern seen both regionally and nationally.

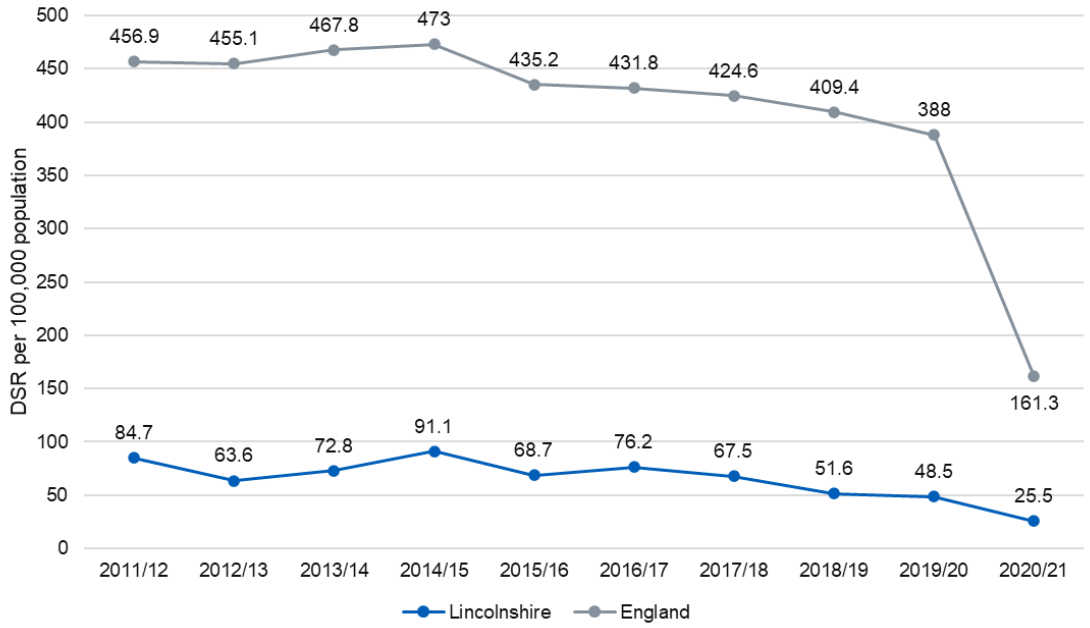
Table 6: Hospital admissions due to dental caries (0–5-year-olds)

Area	2015/16 - 17/18		2016/17 - 18/19		2017/18 - 19/20		2018/19 - 20/21	
	Count	*Rate*	Count	*Rate*	Count	*Rate*	Count	*Rate*
Lincolnshire	55	*37.6*	45	*30.8*	45	*31.1*	35	*24.6*
East Midlands region	1,401	*139.0*	1,330	*132.5*	1,265	*127.2*	870	*88.8*
England	**40,187**	***325.1***	**37,792**	***307.5***	**34,771**	***286.2***	**26,427**	***220.8***

Source: OHID Public Health Profiles (Fingertips)

Figure 5 summarises hospital admission rates due to dental decay for 0–10-year-olds in Lincolnshire and nationally. Since 2011/12, rates in Lincolnshire have been on average 6.5 times lower than those seen nationally. Rates have declined over time, except for 2014/15 when the rate was highest. Admission rates in Lincolnshire saw a drop of 47% from 48.5 (per 100,000) in 2019/20 to 25.5 (per 100,000) in 2020/21, likely due to the COVID-19 pandemic and the subsequent impact on health care services and the overall reduction in non-essential surgical treatments. This pattern was seen nationally, with a 58% fall in the rate over the same period.

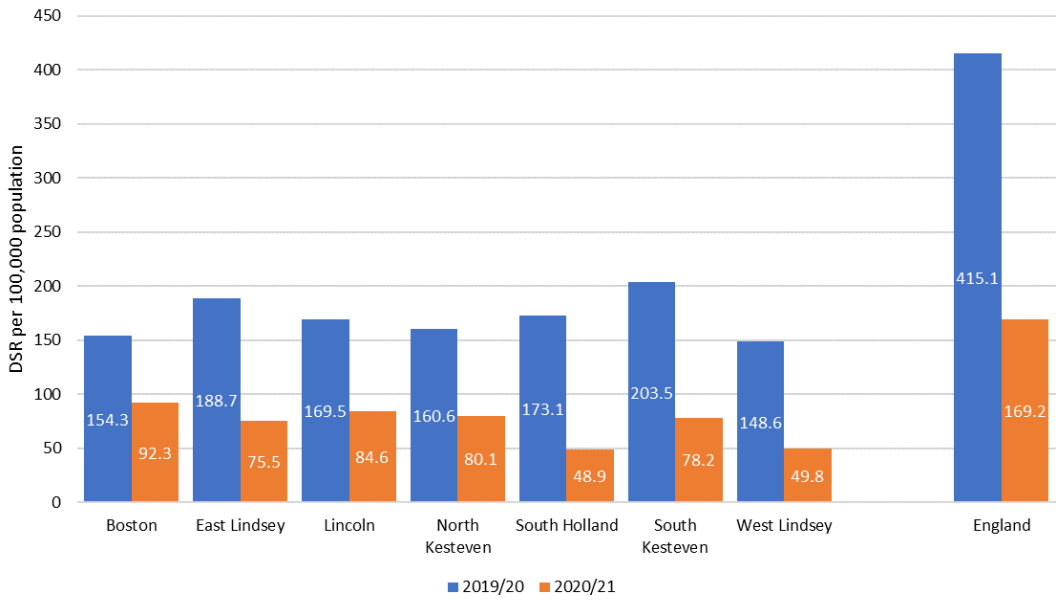
Figure 5: Rate (per 100,000 population) of tooth extractions due to decay for children (0-10 years) admitted as inpatients to hospital



Source: NHSOF

Figure 6 shows the rate of Finished Consultant Episodes (FCEs) for dental extractions among 0–19-year-olds. District level rates for 2019/20 were highest in South Kesteven, East Lindsey and South Holland, and lowest in West Lindsey and Boston: all districts were significantly lower than England. Rates across Lincolnshire and nationally fell significantly in 2020/21, with Boston having the highest rate in Lincolnshire and South Holland having the lowest.

Figure 6: Rate (DSR per 100,000) of Finished Consultant Episodes (FCEs) for 0–19-year-olds for hospital dental extraction, 2019/20 - 2020/21



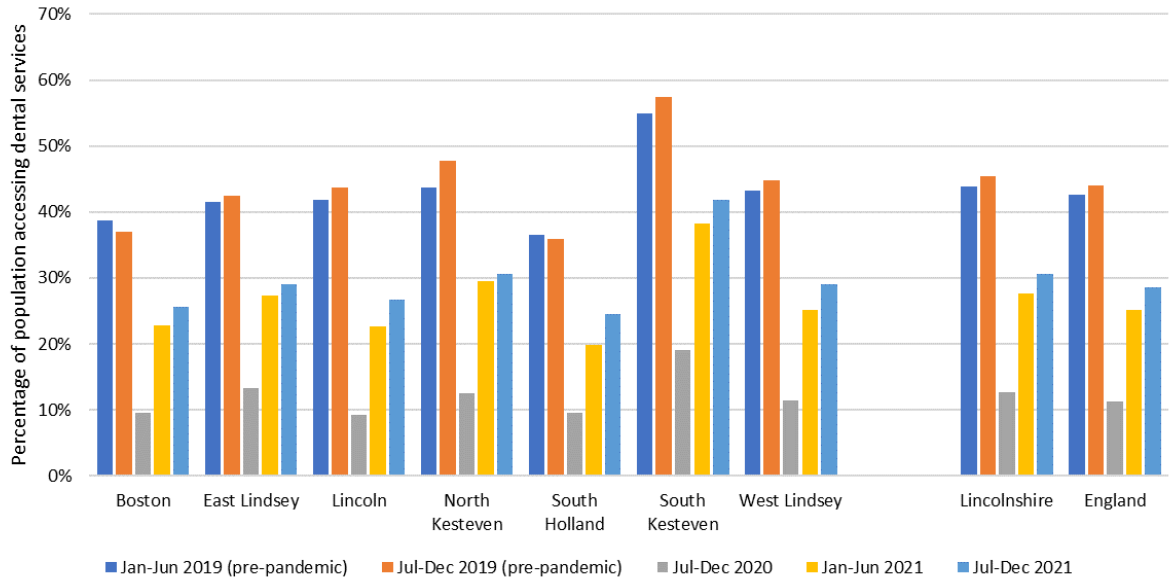
Source: OHID, Dental Public Health Team

7.1.3. Dental Access

NHSEI data shows dental access rates (the proportion of the resident population that have accessed a dentist) across Lincolnshire from 2019 through to 2021. This data helps to see the impact that the COVID-19 pandemic has had on residents and their capacity to access dental services. Dental access is defined as a count of the unique patient identities on FP17 forms (excluding Orthodontic forms) scheduled during the indicated periods. A form is usually scheduled (meaning received and processed) by the NHS Business Services Authority (BSA) almost immediately upon being submitted by the dental practice.

Figure 7 shows that in 2019 (pre-pandemic), access rates among children in Lincolnshire were at 45%, however these rates dropped to 12.7% in 2020, and have since increased to 30.6% by the end of 2021. Between 2019 and 2021, child access rates in Lincolnshire are higher than seen nationally. Within Lincolnshire, the highest access rates can be seen in South Kesteven, and the lowest in Boston and South Holland.

Figure 7: Child (aged 0-17) dental access rates in Lincolnshire, 2019 - 2021



Source: NHS Primary Care Dental Access Dataset

Table 7 compares the proportion of 5-year-olds with observed dental decay and the average number of decayed, missing or filled teeth (NDEP, 2019 survey) with dental access rates among 0–5-year-olds (February 2020 - February 2022). Boston has the highest proportion of 5-year-olds with dental decay (39.3%) and average decayed, missing, filled teeth (dmft[3]) (1.58 teeth), in addition to also having the lowest 0-5 dental access rate of 16%. Conversely, South Kesteven has the highest 0-5 dental access rate (35%), the lowest proportion of 5-year-olds with dental decay (15.3%), and the lowest average dmft[3] (0.48 teeth).

Table 7: Summary of dental decay experience and dmft[3] (5-year-olds) and dental access rates (0–5-year-olds)

Area	Dental experience	Number of decayed, missing or filled teeth	Access rate (%)
Boston	39.3%	1.58	16.0%
East Lindsey	26.5%	0.70	21.0%
Lincoln	26.3%	0.93	20.7%
North Kesteven	15.6%	0.35	26.5%
South Holland	27.9%	1.03	17.5%
South Kesteven	15.3%	0.48	35.0%
West Lindsey	18.5%	0.50	22.4%
Lincolnshire	**25.5%**	**0.87**	**23.6%**
England	**23.4%**	**0.80**	**24.0%**

Source: NDEP 5-year-old survey 2019; NHS BSA, Lincolnshire Dental Access

7.1.4. Dental Activity

NHS Business Services Authority (NHSBSA) provide data on all dental activity in Lincolnshire, where the number of FP17 dental activity forms are counted and analysed based on the type of dental treatment provided. Data are shown for both children (aged under 18) and adults aged 18 and over. Additional demographic information, for example age and sex, is not available for this data. NHSEI provide a detailed overview of what services are covered by each treatment band, along with the associated costs[16].

Table 8 provides a summary of key dental activity among children in Lincolnshire. The proportion of children receiving Band 1 treatment in Lincolnshire (76.5%) is higher than in England (71.6%), while Band 2 and urgent treatment in Lincolnshire is lower than in England. Overall, small proportions of children in Lincolnshire received Band 3 treatment, extractions, or fissure sealants between 2018/19 and 2020/21, although more than half (52.6%) had fluoride varnish treatment.

Table 8: Summary of dental activity among children (aged under 18), by district, 2018/19 – 2020/21

Area	Band 1 treatment	Band 2 treatment	Band 3 treatment	Urgent treatment	Extractions	Fissure sealants	Fluoride varnish
Boston	69.9%	23.3%	0.4%	6.3%	5.9%	3.7%	49.4%
East Lindsey	72.8%	21.8%	0.7%	4.7%	5.3%	1.1%	49.2%
Lincoln	75.5%	19.3%	0.5%	4.7%	4.9%	0.6%	48.0%
North Kesteven	81.4%	14.4%	0.5%	3.7%	4.1%	0.7%	48.4%
South Holland	75.1%	19.0%	0.5%	5.3%	4.8%	1.5%	50.5%
South Kesteven	78.8%	17.0%	0.6%	3.6%	4.1%	2.3%	60.6%
West Lindsey	76.9%	18.1%	0.6%	4.3%	5.0%	0.7%	53.7%
Lincolnshire	**76.5%**	**18.5%**	**0.6%**	**4.4%**	**4.7%**	**1.5%**	**52.6%**
England	**71.6%**	**22.4%**	**0.6%**	**5.3%**	**4.6%**	**1.8%**	**52.7%**

Source: NHSBSA

7.2. Oral Health Amongst Adults

7.2.1. National Dental Epidemiology Programme Data

The NDEP (2017/18) carried out an oral health survey of adults attending general dental practices in England[17]. Adults attending general dental practices for any reason, aged 16 years and over, were recruited to take part in the survey. The survey consisted of a questionnaire on the impact of oral problems on individuals, use of dental services and barriers to receipt of care and a brief clinical examination conducted by trained local epidemiology teams under standardised conditions. In Lincolnshire 403 people completed a questionnaire and 368 clinical examinations were carried out as part of the survey. The report recognises the limitations of the survey, for example, the survey participants were adults who had chosen to attend general dental practices for a routine check-up or for dental treatment and their dental needs may be different from that of the general public. Caution should therefore be taken when using the data to inform need for future dental services and workforce planning for the general population.

Table 9 shows some of the information for Lincolnshire, with some of the key findings being that:

- The proportion of participants with a functional dentition (21 or more natural teeth) was high (81.3%) and comparable to that of England (81.9%).
- 20.7% of participants had untreated tooth decay, lower than across England (26.8%).
- The proportion of participants wearing full or partial dentures (16.3%) was slightly higher than that in England (15.4%).
- The proportion of participants with visible gingival (gum) bleeding was much lower in Lincolnshire (37.2%) than in England (52.9%).

- The proportion of participants who had not seen a dentist in the past 2 years was the same for both Lincolnshire and England (7.9%).

Table 9: Summary of oral health survey of adults (2018)

Area	Percentage of adults examined					
	Functional dentition	Active dental decay	Filled teeth	Dentures	Gum bleeding	Not visited a dentist in the last 2 years
Lincolnshire	81.3%	20.7%	88.6%	16.3%	37.2%	7.9%
England	81.9%	26.8%	90.2%	15.4%	52.9%	7.9%

Source: NDEP Adult Dental Survey 2018

Whilst not specific to Lincolnshire, the overall survey report found:

- Differences between genders. Men were more likely to have tooth decay and gingival bleeding than women. Women were more likely to report experiencing pain at the time of the survey and more likely to report having experienced impacts from problems with their teeth or mouths fairly or very often in the previous year.
- Inequalities in the proportion of people with functional dentition, having front teeth missing with no replacements and tooth decay.
- Despite having greater needs for oral healthcare, the likelihood of having fixed replacements of missing teeth, fillings or one or more crowns was significantly lower in people living in the most deprived areas.
- There was a social gradient in reported limitations in accessing a dental practice, with people living in the most deprived areas more likely to report a limitation than people living in less deprived areas.

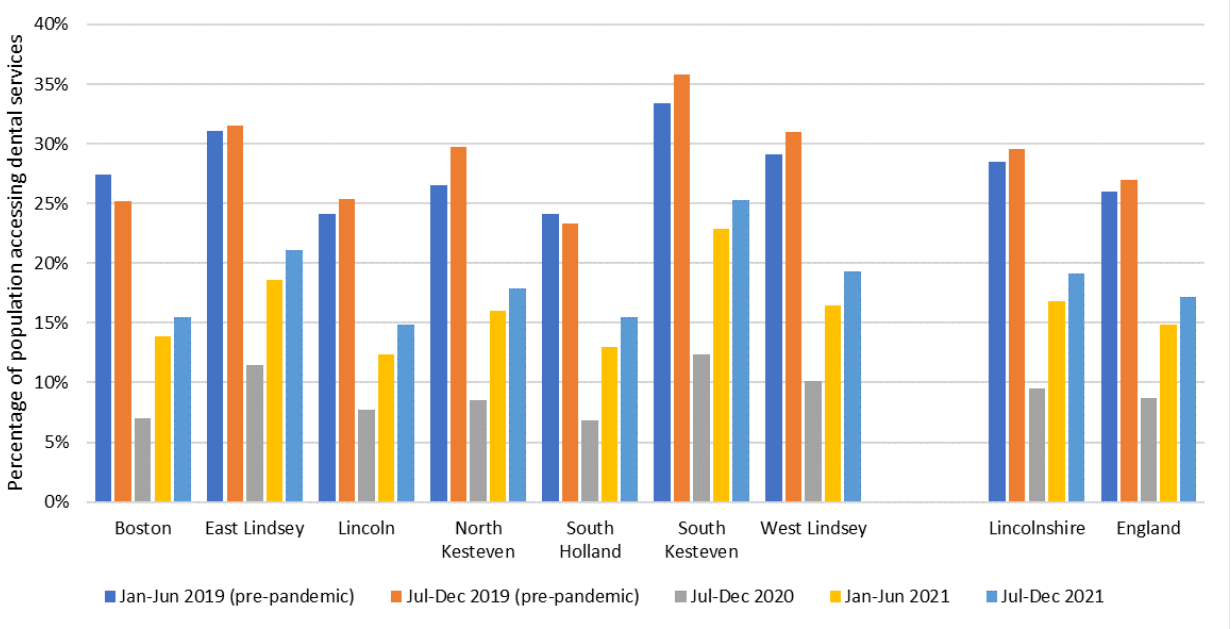
7.2.2. Dental Access

Data provided by NHSEI shows dental access rates (the proportion of the resident population that have accessed a dentist) across Lincolnshire from 2019 through to 2021. This data helps to see the impact that the COVID-19 pandemic has had on residents and their capacity to access dental services. Dental access is defined as a count of the unique patient identities on FP17 forms (excluding Orthodontic forms) scheduled during the indicated periods. A form is usually scheduled (meaning received and processed) by the NHS Business Services Authority (BSA) almost immediately upon being submitted by the dental practice.

Figure 8 summarises NHSEI dental access data for adults (aged 18+) and shows that in 2019 (pre-pandemic), access rates among adults in Lincolnshire were at 29%, however these rates dropped to 9.5% in 2020, and have since increased to 19.1% by the end of 2021. Between 2019 and 2021, adult access rates in Lincolnshire were higher than seen nationally. Within Lincolnshire, the highest access rates are in

South Kesteven and East Lindsey, and the lowest rates in Lincoln and South Holland.

Figure 8: Adult (aged 18+) dental access rates in Lincolnshire, 2019 - 2021



Source: NHS Primary Care Dental Access Dataset

7.2.3. Dental Activity

Using NHSBSA data[15] Table 10 provides a summary of key dental activity among adults in Lincolnshire. The proportion of adults receiving Band 1 treatment (55.7%) is higher than in England (50.3%), while Band 2, Band 3 and urgent treatment uptake in Lincolnshire is lower than in England. In addition, the proportion of adults having extractions or fluoride varnish treatment is higher in Lincolnshire than nationally. At a district level, Lincoln has the lowest uptake of Band 1 treatments in the county (49.5%) yet has higher uptake of Band 2 (30.6%), urgent (14.2%) treatments and extractions (10.8%). Boston has a high uptake of fluoride varnish treatments (6.2%) compared to other districts.

Compared to child dental activity (see Section 7.1.4), Band 1, fissure sealant and fluoride varnish treatments are considerably higher in children than in adults, both locally and nationally.

Table 10: Summary of dental activity among adults (aged over 18), by district, 2018/19 – 2020/21

Area	Band 1 treatment	Band 2 treatment	Band 3 treatment	Urgent treatment	Extractions	Fissure sealants	Fluoride varnish
Boston	55.3%	26.8%	5.3%	12.2%	10.1%	0.0%	6.2%
East Lindsey	53.9%	29.4%	5.6%	10.3%	9.7%	0.0%	2.3%
Lincoln	49.5%	30.6%	5.1%	14.2%	10.8%	0.0%	3.6%
North Kesteven	56.7%	26.5%	4.3%	12.0%	8.9%	0.0%	4.3%
South Holland	54.8%	27.6%	4.8%	12.2%	8.2%	0.0%	1.9%
South Kesteven	60.6%	24.0%	3.6%	10.7%	6.6%	0.1%	2.2%
West Lindsey	55.2%	26.7%	4.9%	12.5%	8.7%	0.0%	1.7%
Lincolnshire	**55.7%**	**27.1%**	**4.7%**	**11.7%**	**8.8%**	**0.0%**	**2.9%**
England	**50.3%**	**27.7%**	**6.4%**	**14.8%**	**8.1%**	**0.1%**	**2.5%**

Source: NHSBSA

7.3. Oral Cancer

The risk of oral cancer (defined as cancerous lesions in one of 3 distinct sites: oral cavity (mouth), oropharynx (throat) and lip (outer)) increases with age.

The main factors that increase the risk of developing mouth cancer are smoking, alcohol consumption, a poor diet and infection with the human papilloma virus (HPV)[18].

Latest national figures from Cancer Research UK for 2016-18 suggest there are around 12,400 new cases of oral cancer diagnosed each year, with head and neck cancer being the 8th most common cancer in the UK. Incidence and diagnosis data for oral cancers are currently not available for Lincolnshire[19].

Using NHS Digital Civil Registration mortality data for Lincolnshire, numbers, and rates of deaths due to oral cancer (lip, oral cavity, and pharynx) have been produced for deaths between 2012 and 2021. Due to the small numbers seen, annual data has been presented for three-year pooled periods. Directly age standardised rates (DSR) per 100,000 population have been calculated, using ONS mid-year population estimates (three-year pooled) for each respective period. Where appropriate, 95% confidence limits have been included so measure any statistically significant changes over time.

During 2019-2021, there were 122 deaths in Lincolnshire from oral cancer, the equivalent DSR was 4.7 deaths per 100,000 population. Rates of oral cancer mortality in Lincolnshire increase with age, with the highest rates being in those aged over 75 (Table 11).

Figure 9 shows that oral cancer mortality rates have seen a general increase from 3.6 deaths per 100,000 in 2012-2014, to 4.7 deaths per 100,000 in 2019-2021, however rates were highest in 2016-2018 (5 deaths per 100,000). There is no

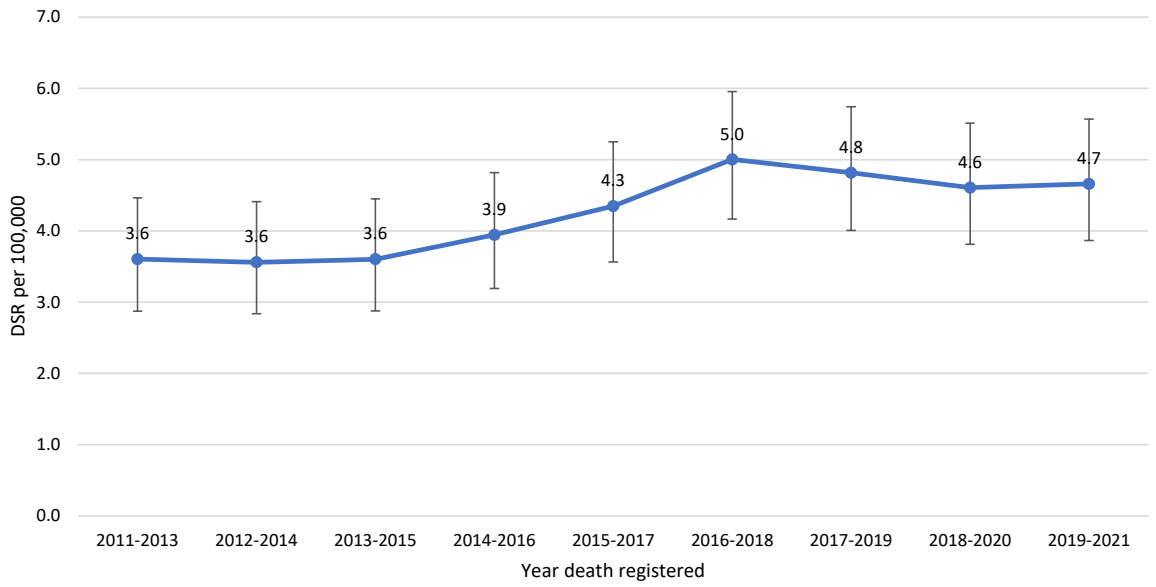
statistically significant change in oral cancer mortality rates in Lincolnshire over the reported periods.

Table 11: Count and age specific mortality rate (per 100,000 population) due to cancer of lip, oral cavity and pharynx (ICD10 codes C00-C14) by age group, 2019 - 2021

Age group	Deaths	Age specific rate	%
0-4	0	0	0.0%
5-9	0	0	0.0%
10-14	0	0	0.0%
15-19	0	0	0.0%
20-24	0	0	0.0%
25-29	0	0	0.0%
30-34	*	0.8	0.8%
35-39	*	0.8	0.8%
40-44	*	1.7	1.6%
45-49	*	4.1	4.9%
50-54	*	2.4	3.3%
55-59	15	9.0	12.3%
60-64	18	12.1	14.8%
65-69	22	15.2	18.0%
70-74	30	19.9	24.6%
75-79	28	26.7	23.0%
80-84	23	31.9	18.9%
85+	23	34.5	18.9%
Total	**122**	**4.7**	

Source: NHS Digital, Civil Registration Mortality Data

Figure 9: Directly age standardised rate (deaths per 100,000 population) of all deaths due to cancer of lip, oral cavity and pharynx, 2011 - 2021



Source: NHS Digital, Civil Registration Mortality Data

7.4. Oral Health - Risk factors

As highlighted in ‘Delivering Better Oral Health: an evidence-based toolkit for prevention', most oral diseases can be prevented or managed by healthy behaviours, such as a balanced diet and cleaning teeth and gums effectively. The following section outlines key behavioural risk factors and some information on how these relate to the Lincolnshire population. Further information can be found in the Lincolnshire JSNA.

- As of 2020, 11.7% of adults in Lincolnshire (aged 18+) were current smokers, which is comparable to 12.5% nationally. The definition for determining smokers changed in 2020, however recent trends show that adult smoking prevalence has fallen since 2013.
- At a district level, 24.8% of adults in Lincoln currently smoke, which is significantly higher (worse) than England, and is the 2nd highest rate in the country. All other districts have rates comparable with England.
- As of 2020/21, there were 397 admission episodes (per 100,000 population) for alcohol-specific conditions in Lincolnshire. This is significantly better (lower) than the national rate of 587 per 100,000. Recent trends show that rates in Lincolnshire have increased, however have remained below the national rates.
- At district level, Lincoln has the highest admission rate for alcohol-specific conditions (631 per 100,000 population), however this rate is statistically comparable to the national rate. All other districts have rates that are significantly lower (better) than the national rate.

8. Lincolnshire Dental and Oral Health Service Provision

As highlighted in section 4, NHSEI is currently responsible for commissioning all NHS dental services including primary care dental services, specialist dental services in primary care (e.g., Intermediate Minor Oral Surgery (IMOS) and Community Dental Services (CDS)) as well dental services from NHS Hospital Trusts. Private dental services are not within the scope of NHSEI responsibility. The responsibility for oral health improvement is with Local Authorities.

Unlike General Medical Services (i.e., general practices) there is no system of patient registration with a dental practice and patients are free to choose to attend any dental practice, regardless of where they live.

NHS dentists are commissioned for Units of Dental Activity (UDAs) which are a measure of the amount of work done during dental treatment, with more complex dental treatments counting for more UDAs than simpler ones. This ROHNA does not provide information on the levels of commissioned UDAs in the county.

The NHS England Midlands Region Dental Strategy 2022-2024 highlights that across the Midlands geography, dental services are facing pressure, because of demand and the resources available to provide services. The dental sector has faced particular challenges during the pandemic, due to the infection prevention and control (IPC) protocols in place to ensure the safety of patients and staff. During the pandemic, a backlog of NHS dental care accumulated due to dental services not being able to operate at full capacity. Contractual responsibilities changed, and practices were required to prioritise urgent care; vulnerable patients (including children) and those at higher risk of oral health issues. This, in additional to workforce pressures is causing a significant challenge for dental access in the County. In Q4 of 2021/22, 70% of the contracted Units of Dental Activity were delivered in Lincolnshire against a threshold of 75%, which was lower than in the Midlands (76.9%). 14 (23%) of Lincolnshire NHS dental contractors met or exceeded the 75% requirement (38% in Midlands), although this data does not tell us anything about the size of the contracts where the target was met or missed. The usual contracting arrangements will return from Q2 2022/23 onwards.

NHS dental services in Lincolnshire are comprised general dental services, urgent dental services, community dental services and dental services in NHS Hospitals.

8.1. General Dental Services

The NHS will provide any clinically necessary treatment needed to keep the mouth, teeth, and gums healthy and free of pain. Common dental treatments available on the NHS include for example, scale and polish, root canal treatment and crowns and bridges. NHS dental treatment is free for certain groups of the population for example, anyone under 18, or 19 and in full time education, people in receipt of

income support-based benefits and pregnant women and those who have had a baby in the past 12 months

As of March 2022, there are 97 dental practices in Lincolnshire, of which 60 hold an NHS contract. 37 are wholly private dental practices. Of the 60 dental practices that hold an NHS contract, eight practices only offer NHS treatment to under 18’s, and three practices offer treatment to under 18s and adults who are exempt.

Figures 10 to 17 show the location of all dental practices (NHS and private) in Lincolnshire and within each of the district localities.

Figure 10: Location of dental practices in Lincolnshire

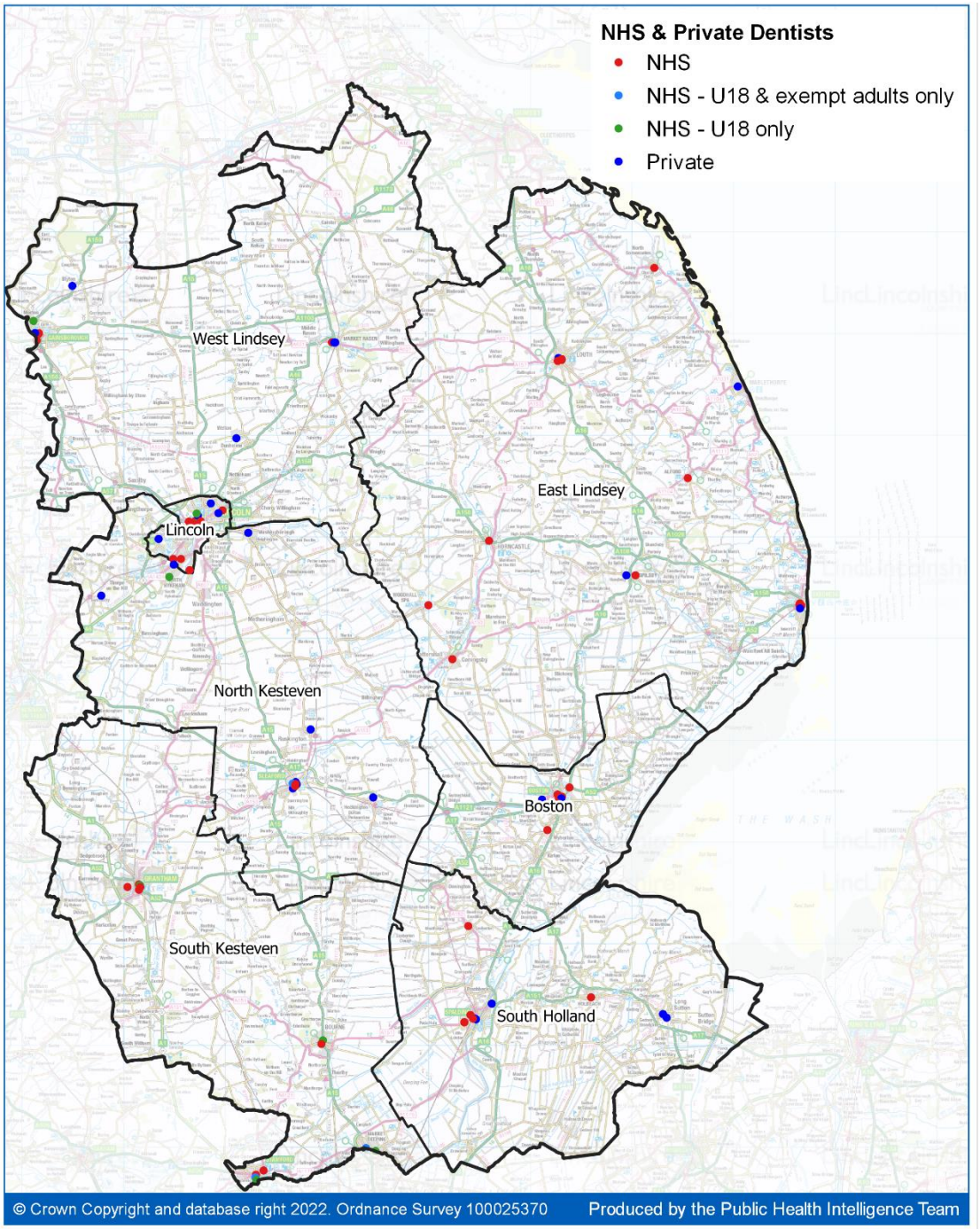


Figure 11: Location of dental practices in Boston

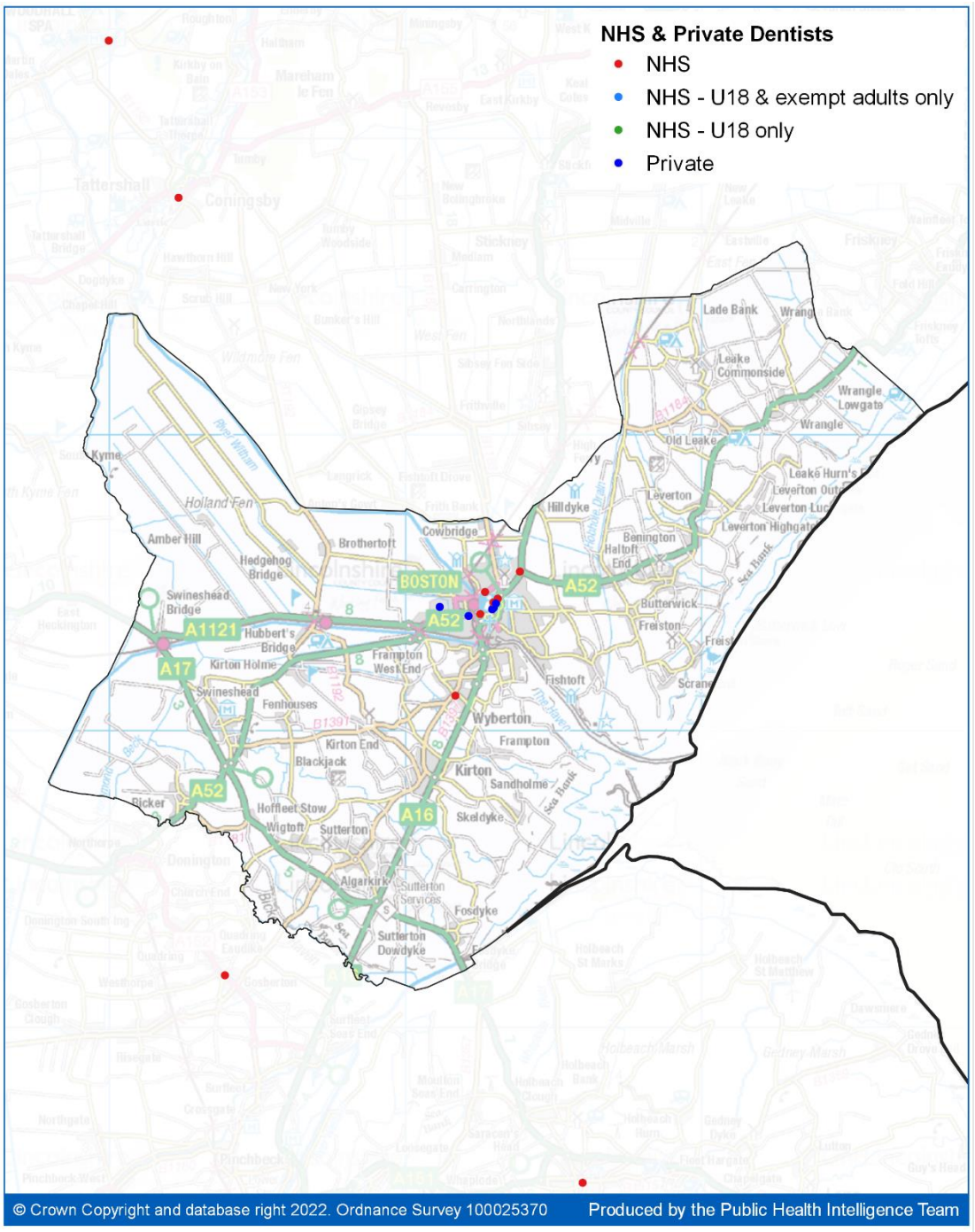


Figure 12: Location of dental practices in East Lindsey

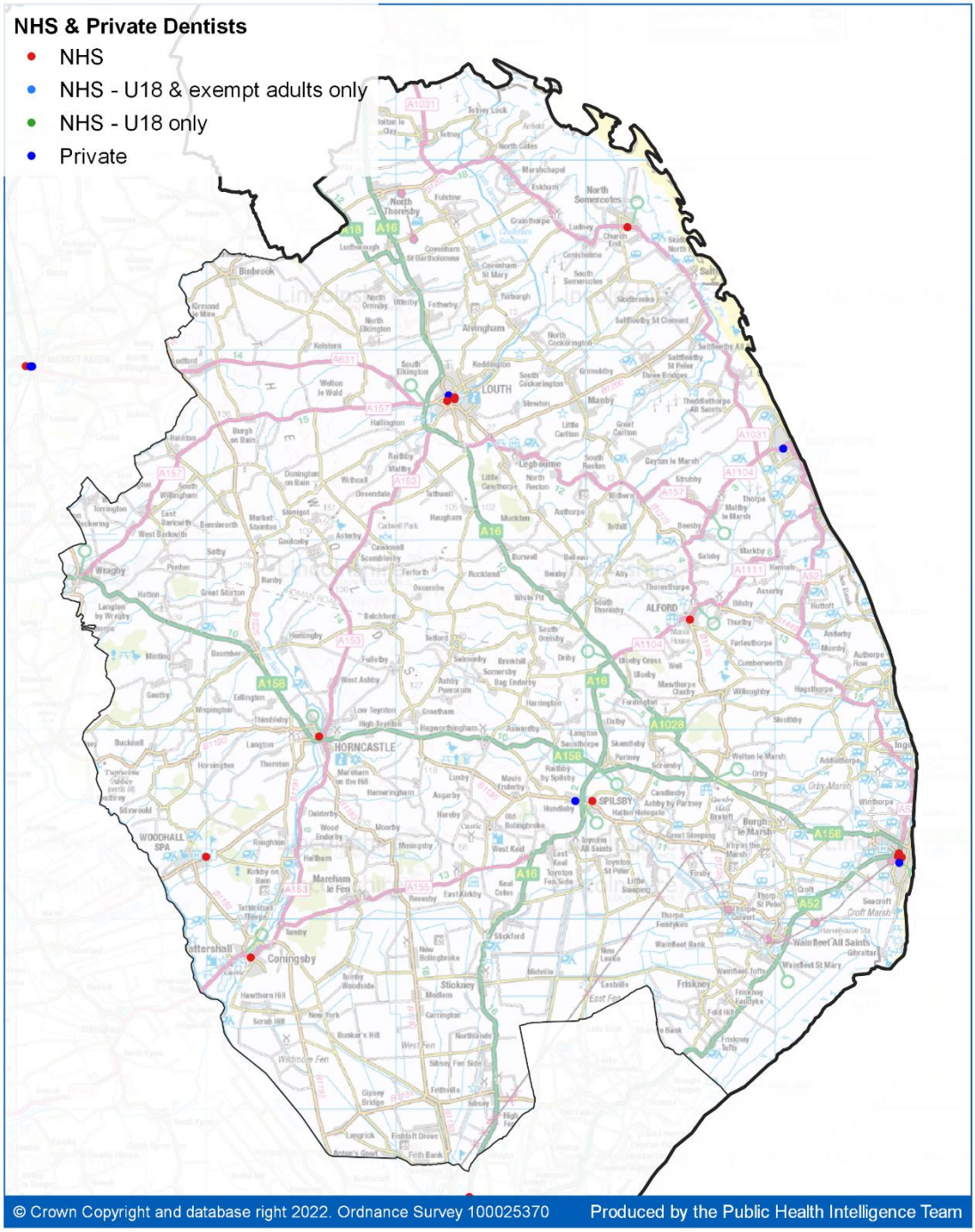


Figure 13: Location of dental practices in Lincoln

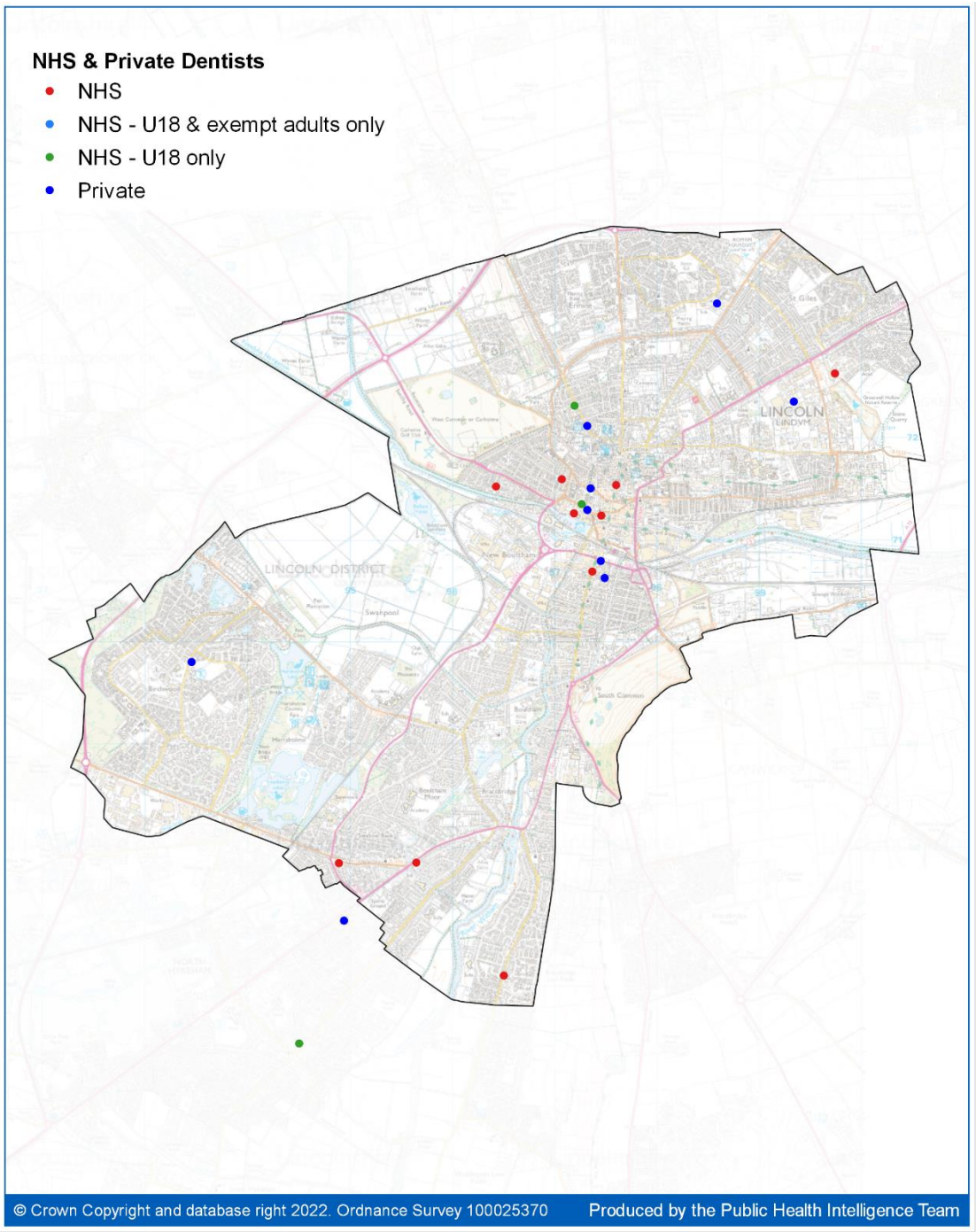


Figure 14: Location of dental practices in North Kesteven

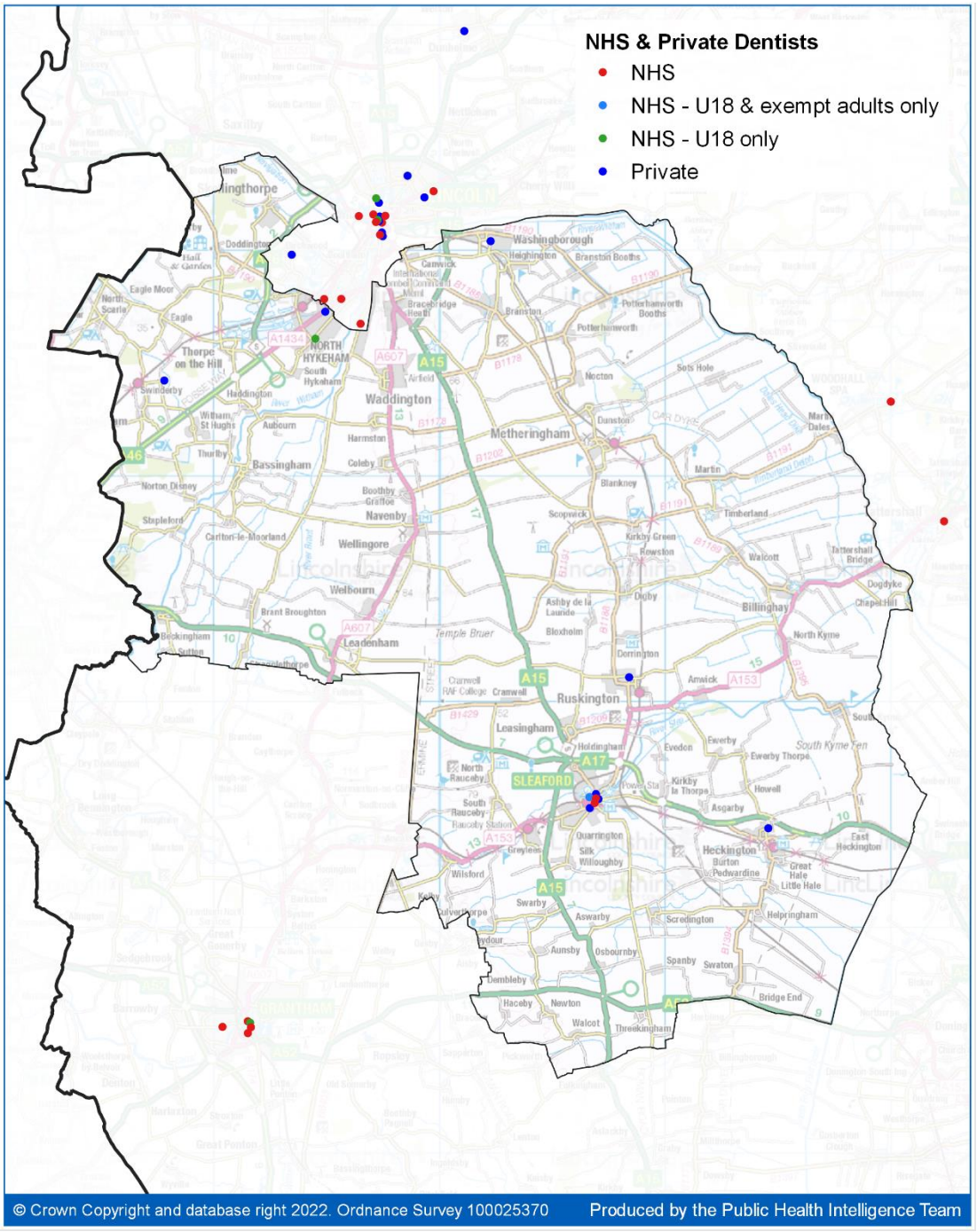


Figure 15: Location of dental practices in South Holland

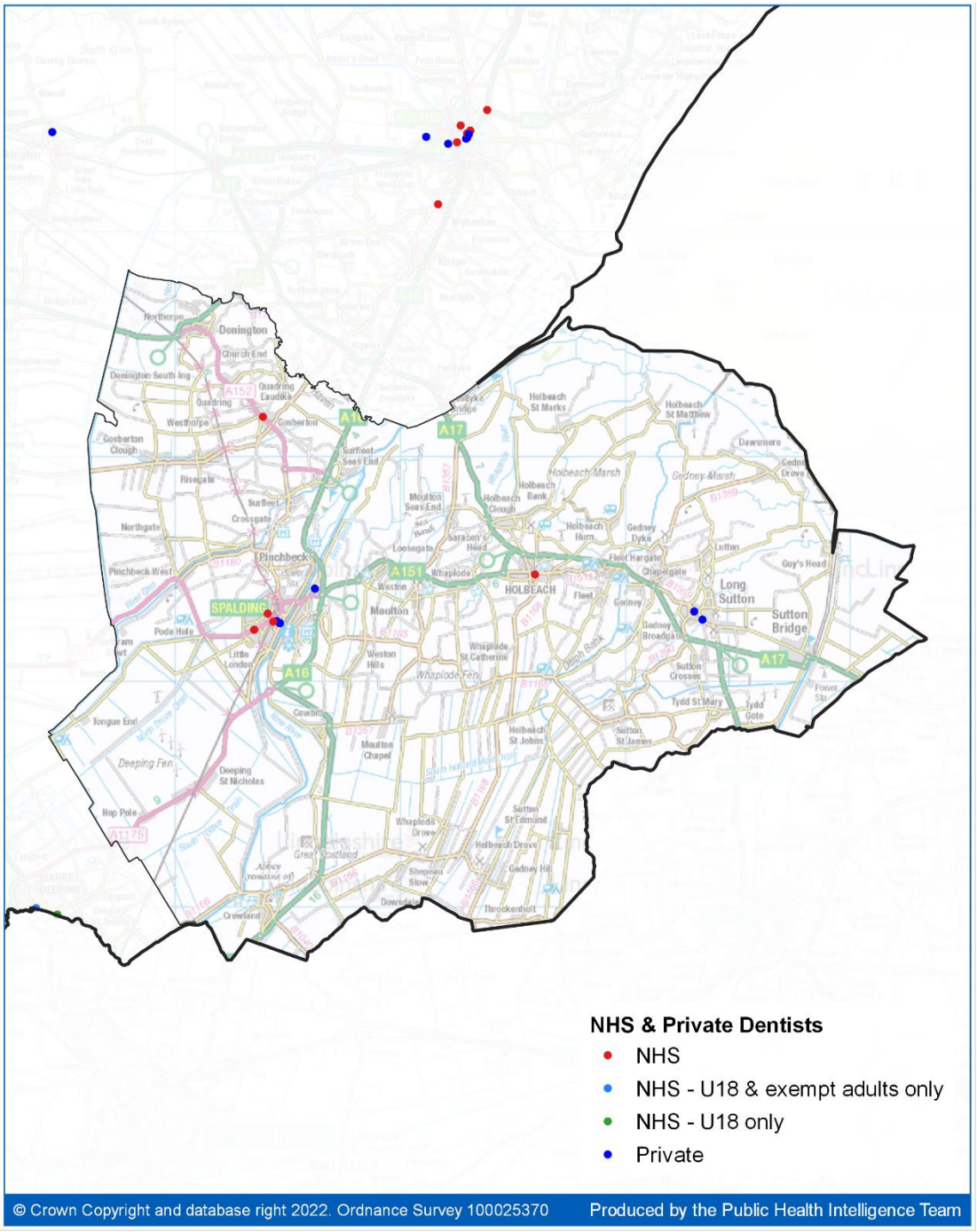


Figure 16: Location of dental practices in South Kesteven

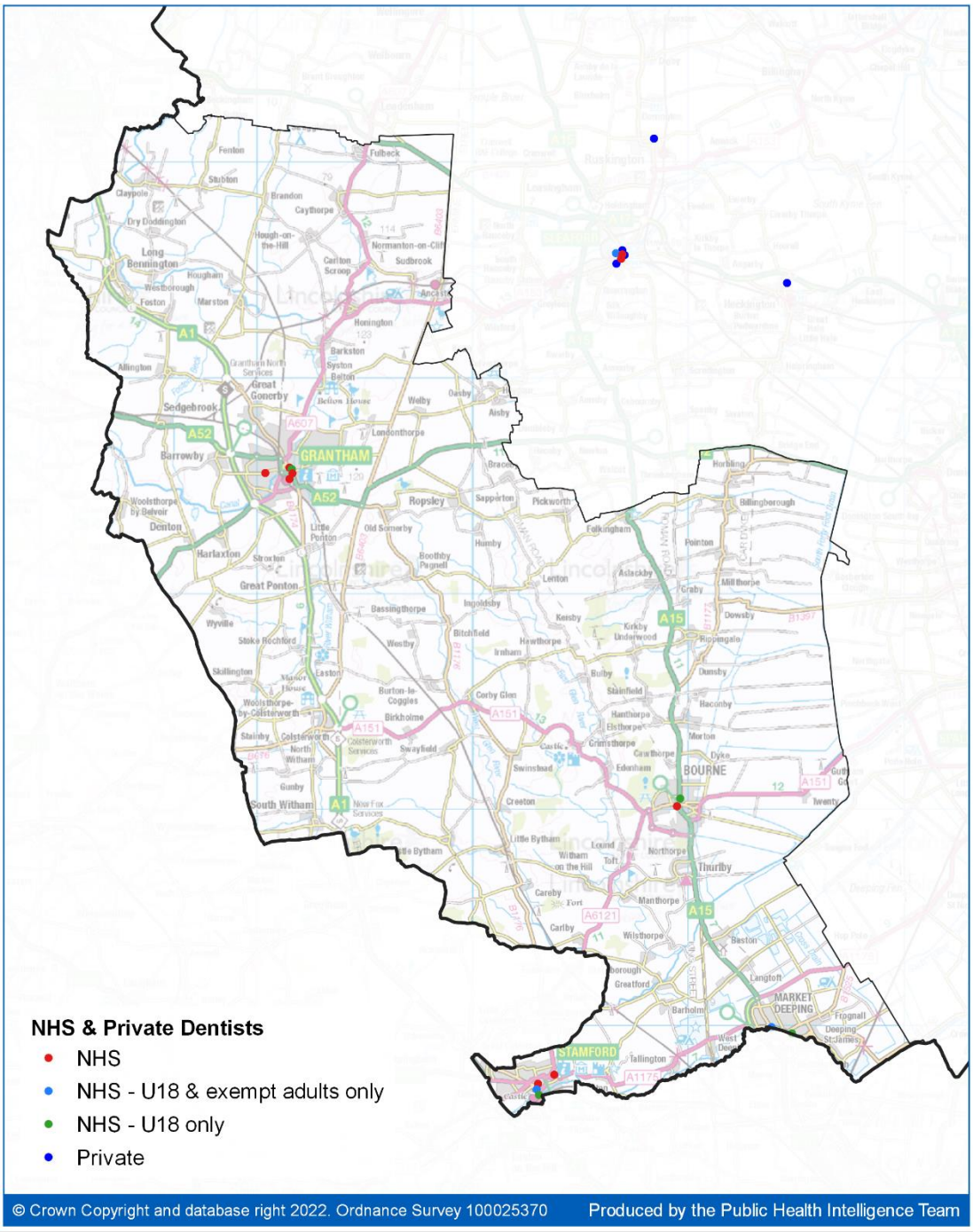
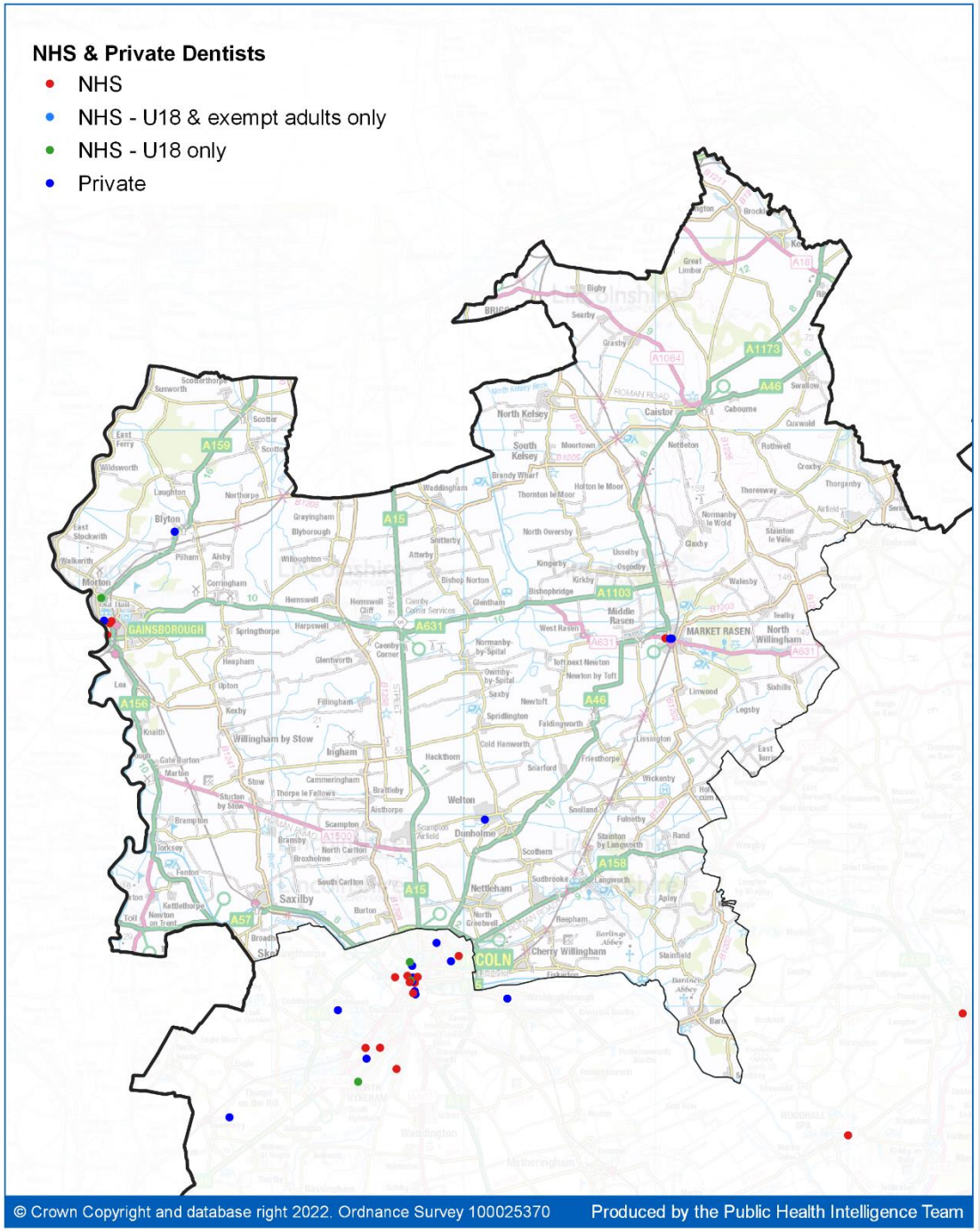


Figure 17: Location of dental practices in West Lindsey



8.2. Intermediate Minor Oral Surgery Service (IMOS) and Hospital Provision

Where patients require a complex dental extraction within a primary care setting, this is provided by the Intermediate Minor Oral Surgery Service (IMOS). There are 5 providers across Lincolnshire (Boston, Skegness, Lincoln, Grantham, and Gainsborough). This referral only service is for patients over the age of 16 years who meet the clinical criteria. The waiting times for the service have been impacted by the pandemic.

Where patients require referral for dental treatment at a hospital secondary care, this is provided by the United Lincolnshire Hospitals NHS Trust (ULHT). ULHT is commissioned to deliver orthodontic, oral surgery and maxillofacial surgery on referral from an individual's dentist.

8.3. Community Dental Services

Special care dental services for adults and children are provided by Community Dental Services (CDS) and delivered from seven dental clinics in the county (Louth, North Hykeham, Skegness, Boston, Grantham, Spalding, and Gainsborough). CDS also has five mobile dental clinics that are fully equipped to deliver high quality dental care in hard-to-reach locations. Lincolnshire has access to one of the mobile units which is used for the HMP North Sea Camp contract.

CDS is a 'referral' only dental service, and patients are referred in by Dentists. Most patients are referred because they are unable to be treated in a General Dental Practice because of learning difficulties, mental health issues or very severe dental anxiety. Sometimes patients are referred because they need specialist or complex care and are referred back to their usual dentist after their course of treatment'[20].

8.4. Oral Health Improvement

Lincolnshire County Council commission an oral health promotion and epidemiology service, which is provided by CDS. This service delivers a wide range of programmes, which contributes to the delivery of the Lincolnshire OHAG work plan. Some of these programmes include:

- Providing a supervised toothbrushing programme (Lincolnshire Smiles) across targeted education settings.
- Providing training for staff to be able to deliver the oral health component of the Early Years Foundation Stage (EYFS) Framework.
- Carrying out the national dental epidemiology surveys in sampled settings.
- Carrying out targeted oral health activities for vulnerable groups, for example, Afghan refugees, people who are homeless.
- Supporting the Swallowing, Oral Health and Nutritional Ambassadors (SONA) programme for social care providers.

- Supporting several oral health campaigns, for example National Smile Month, which promotes good oral health.
- Supporting the Holiday Activities Food (HAF) Programme which supports children in receipt of free school meals during holiday periods.

Whilst not specifically oral health improvement, there are a range of other commissioned services that support people to maintain their oral health. 'One You Lincolnshire' (OLY), Lincolnshire's integrated lifestyle services, supports people with a range of issues, for example, to drink less and to be smoke free.

8.5. Dental Provision in Secure and Detained Settings

NHSEI Health and Justice is responsible for commissioning healthcare for people in secure and detained settings, which includes dental services[21].

Provision of dental services in secure settings offers a real opportunity to reduce these health inequalities in a population who may not normally access dental services. Supporting people to access dental services post-custody is important in maintaining any oral health improvements.

In Lincolnshire there are two Prisons (Lincoln and North Sea Camp) and an immigration removal centre at Morton Hall.

CDS provide dental services in the Healthcare Department of a number of prisons, including North Sea Camp[22]. Dental Services 'Time For Teeth'[23] work closely with offender healthcare teams in the UK helping to shape the future of dental healthcare in prisons, young offender institutes, secure training centres, high security hospitals and immigration removal centres. This includes Lincoln Prison and North Sea Camp.

8.6. Water Fluoridation

Since 2013 Local Authorities, have had the responsibility to propose and consult on new fluoridation schemes and for variations to or termination of existing schemes. The 2022 Health and Care Bill, which recently received Royal Ascent, will pass responsibility for fluoridation back to the Secretary of State. Specifics of this transfer of power and information on a national roll out of fluoridation are awaited at the time of writing.

Currently, approximately 10% of England's population, or about 6 million people, have a fluoridated water supply. The OHID Health Monitoring Report for England[24], supports earlier findings and evidence that water fluoridation, at levels recommended in the UK, is a safe and effective public health measure to reduce dental caries and inequalities in dental health.

It is estimated that approximately 250,000 people in Lincolnshire are supplied with artificially fluoridated water as reported in the 'British Fluoridation Society the Extent

of Water Fluoridation Report'[25]. Figure 19 highlights the fluoridated communities in Lincolnshire that include Lincoln, Gainsborough, Sleaford, Grantham, parts of Market Rasen and a large number of rural communities across the west and central areas of the county. This represents approximately a third of the Lincolnshire population.

Figure 18: Extent of artificial water fluoridation in the UK

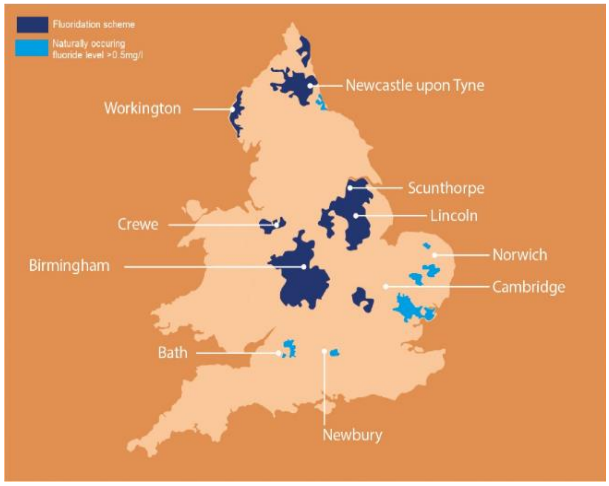


Figure 19: Artificial water fluoridation in Lincolnshire

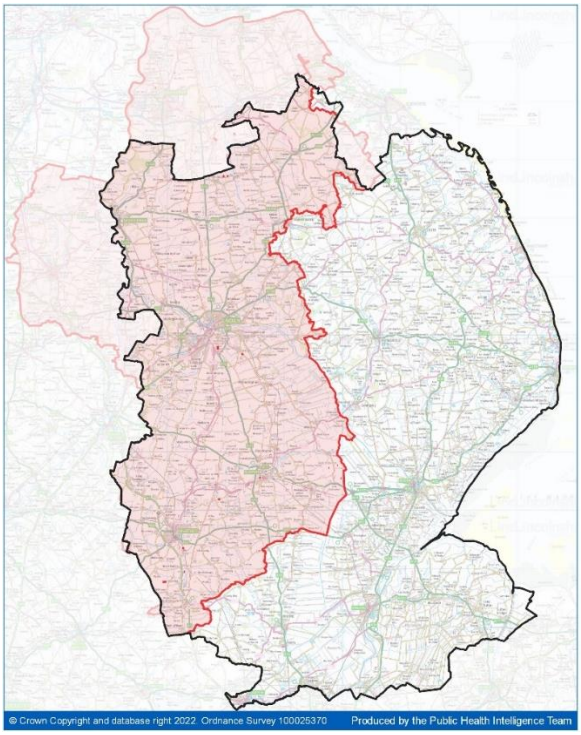


Table 12 provides a comparative summary of both dental activity and hospital admission rates due to dental extraction, between areas of artificial fluoridation and areas with no artificial fluoridation. Areas of fluoridation have been provided by Anglian Water and aggregated and aligned with small area geographies (lower and middle super output areas) using a model of best fit.

For adults, dental treatment rates are generally higher in the fluoridated areas than non-fluoridated, with the exception of Band 3 treatments, which are higher in non-fluoridated areas. Dental treatment rates are higher in children living in non-fluoridated areas, with the exception of Band 1 treatments, which are noticeably higher among children living in artificially fluoridated areas. Rates of hospital admissions due to dental extractions are 15% higher among children in non-fluoridated areas, however the difference is not statistically significant.

Table 12: Summary of dental activity and hospital admissions for dental extractions, by areas of artificial fluoridation

Indicator	Age group	Measure	Time period	Fluoridated			Non-fluoridated		
				Number	Population	Rate	Number	Population	Rate
Band 1 dental treatments	Adult (18+)	Crude rate per 100,000	2018/19 - 2020/21	262,192	905,229	28,964	265,661	938,776	28,299
Band 2 dental treatments				126,941		14,023	130,297		13,879
Band 3 dental treatments				20,840		2,302	23,946		2,551
Urgent dental treatments				57,299		6,330	53,565		5,706
Band 1 dental treatments	Child (<18)			133,745	218,707	61,153	115,329	220,678	52,261
Band 2 dental treatments				29,213		13,357	31,026		14,059
Band 3 dental treatments				879		402	928		421
Urgent dental treatments				6,699		3,063	7,687		3,483
Hospital admissions for dental extractions	Child (<18)	DSR per 100,000	2016/17 - 2020/21	588	384,819	154 (*CI 142 - 167*)	661	383,329	177 (*CI 164 - 191*)

Source: NHSBSA; Hospital Episode Statistics

9. Service User Feedback

In May 2022 Healthwatch Lincolnshire published their findings from a Quick Poll Survey on Dental Services carried out in March 2022 amongst 236 people[26]. The aim was to gain an insight into the accessibility of NHS dental services in Lincolnshire and the ability to seek NHS dental treatment in the past 12 months. The report summaries how access to NHS dental services is a key issue throughout Lincolnshire. It highlights how the Information and Signposting team have repeatedly heard from individuals who have contacted 10+ dentists to try to register with an NHS practice with no success. However, patients are able to register with many of these practices as private patients.

Healthwatch's Information and Signposting Officer receives regular feedback from patients within Lincolnshire. Three key themes were identified in the Healthwatch report from December 2021 relating specifically to dental services: a lack of NHS provision, a lack of NHS treatment (private offered but unaffordable for many) and long waits for orthodontic services.

10. Conclusions and Recommendations

Good oral health is essential for general health and wellbeing. Most people are at risk of developing some oral disease during their lifetime. Like with many health conditions, there are significant health inequalities across Lincolnshire.

Lincolnshire is a large county with diverse health needs. Some areas of Lincolnshire are amongst the most deprived in the country.

The NDEP provides essential oral health data, illustrating differences across the county to help inform the targeting of preventative interventions.

It is well established that the COVID-19 pandemic has impacted on dental service provision. Even before the pandemic, access to dental services was difficult for some people, and restrictions imposed to protect health in 2020 and 2021 have placed further pressure on the system. Across Lincolnshire, organisations are working together to deliver a range of interventions to support oral health, including through the provision of dental services and oral health improvement interventions.

Key recommendations are:

- For some sections of this ROHNA, information is quite limited and the OHAG should continue to work together to develop these areas, for example, commissioned dental service information and service user feedback.
- The OHAG should continue to work together to promote the oral health of people in Lincolnshire. This should include improving access to universal oral health promotion initiatives (such as water fluoridation) and targeted initiatives that support the health of those in greatest need (such as toothbrushing programmes).
- Understanding of oral health outcomes and access to services in certain population subgroups is quite limited. OHAG will work with partners to develop a better understanding of inequalities in outcomes and how to support oral health promotion in specific population subgroups, with an initial focus on people with learning disabilities and autistic people.
- The Lincolnshire system should continue to support the National Dental Epidemiology Programme, by supporting and participating in surveys to gather data on the oral health needs of the population, to enable interventions to be focussed on those with greatest need.
- Access to a dentist is a key part of oral health promotion as well as vital for the provision of dental care. This report has highlighted variation in need and access across the county, with a mismatch between areas of greatest need and the availability of services. Organisations that commission and provide dental services, and train the dental workforce, must continue to work together to address inequities in access, with a focus on those areas with acute gaps in provision.

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