NHS ENGLAND AND NHS IMPROVEMENT

SUMMARY
ORAL HEALTH NEEDS ASSESSMENT

SOUTH WEST OF ENGLAND

January 2021

Ottaway Strategic Management

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NHS England and NHS Improvement
South West of England

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Summary Oral Health Needs Assessment

Contents

Aims

The aim of this Oral Health Needs Assessment (OHNA) is to describe the oral health profile of people living in the South West of England and to provide an overview of the currently commissioned dental care services in the area and identify any potential gaps in service provision. Furthermore, this needs assessment aims to provide evidence to inform the commissioning objectives of NHSE&I and to support partner agencies including Local Authorities, Health Education England (HEE) and Public Health England (PHE) as well as the local professional networks in developing programmes aimed to improve oral health and reduce inequalities.

Objectives

- To describe the demographic characteristics of the population
- To present the prevalence and incidence of oral diseases in the region
- To describe the currently commissioned dental service provision with particular focus on primary care
- To identify any potential gaps in service provision

Proposed output

The proposed output from this document is to provide a summary of the main findings from the full OHNA.

The full OHNA report is available as the main report and this is accompanied by 7 appendices, one for each STP area:

- Cornwall and Isles of Scilly
- Devon
- Somerset
- Bristol, North Somerset and South Gloucestershire
- Gloucestershire,
- Bath and North East Somerset (BANES), Swindon and Wiltshire
- Dorset

How to use this document

This document provides a summary of the main OHNA report and it is designed to be utilised as a stand-alone document. Should further information or explanation be required, this is provided in the main report and is further supported through the 7 STP appendices containing local data analysis, as well as a full review of the engagement exercises undertaken with patients, the general public and oral health stakeholders and practitioners in the South West.

1 Background

Context

1.1 Good oral health is an integral component of general health. The World Health Organisation (WHO) defines oral health as "a state of being free from mouth and facial pain, oral and throat cancer, oral infection and sores, gum disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing"[1].

1.2 The main oral diseases are dental caries (decay), gum disease, oral cancers, cleft lip and palate, tooth erosion and orthodontic disorders. Many of the risk factors that can lead to these conditions also contribute to other diseases, emphasising the need to include oral health in initiatives designed to promote health in general[2]. These risk factors include but are not limited to:

- Diets high in sugary foods and drinks, including 'hidden' sugars in foods that may not be expected to contain sugars
- Inappropriate infant feeding practices (e.g. frequent snacking, fizzy drinks)
- Poor oral hygiene
- Dry mouth (often the side effect of certain medications e.g. psychotropic medications)
- Smoking/use of tobacco and other carcinogenic substances
- Excessive alcohol consumption.

Commissioning of services

1.3 The Health and Social Care Act 2012[3] created a new commissioning framework for the provision of health, social care and public health in England. From April 2013, NHS England became the single commissioner for all dental services, including primary, secondary and unscheduled dental care. In addition, local authorities became responsible for improving the oral health of their communities and for commissioning oral health improvement services. The Health and Social Care Act 2012 also sets out the joint and equal responsibilities of local authorities and clinical commissioning groups to prepare both joint strategic needs assessments (JSNAs) and joint health and wellbeing strategies through health and wellbeing boards.

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[1] World Health Organization; Oral health https://www.who.int/news-room/fact-sheets/detail/oral-health

[2] Sheiham A, Watt RG. The common risk factor approach: a rational basis for promoting oral health. Community dentistry and oral epidemiology. 2000;28(6):399-406.

[3] Health and Social Care Act

2 Population and demographics

Age profile

2.1 The age profile of the South West of England includes a higher proportion of people over the age of 65 years (22%) than the average for England (18%). The proportion of people of working age (60%) is below the national average, which is (64%). The proportion of children and young people (under 16 years) is in line with the national average (18%)[4].

Population Growth

2.2 Evidence from national population projections show that the South West's population will grow by 7%[5] over the next 8 years. This will apply to the population as a whole but predominantly the over 65 group. This group is expected to grow by 21% (more than 255,000 people). This growth is seen in all areas of the South West, ranging from 13% in Bristol, North Somerset and South Gloucestershire and up to 24% in Somerset, BANES, Swindon and Wiltshire and Gloucestershire. This will have implications on the number of adults in nursing homes and increase the number of patients with complex chronic conditions like diabetes and dementia, who may also need additional support for accessing oral health care services.

Deprivation and Indices of Multiple Deprivation

2.3 People living in deprived communities consistently have poorer levels of oral health than people living in more affluent areas[6]. The prevalence of tooth decay, tooth loss, oral cancer and gum disease follows this social gradient. The region generally has a lower average Indices of Multiple Deprivation (IMD) than other parts of the country, however many localities have areas with high and relatively high levels of multiple deprivation. The top ten local authority areas with the highest levels of LSOA[7] and with high IMD Scores are: Torbay, Plymouth, Bristol, Torridge, Cornwall, Gloucester, Sedgemoor, North Devon, Somerset West, Taunton and Swindon.

Health inequalities

2.4 In the South West life expectancy is higher generally than the England average with men living on average 80.2 years and women living to 83.8 years. There are areas with lower levels of life expectancy than the national average including Bristol,

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[4] ONS mid-2018 estimates https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates

[5] 2018-based subnational population projections regions in England (ONS, 2020)

[6] https://publichealthmatters.blog.gov.uk/2017/06/14/health-matters-child-dental-health/

[7] Lower Level Super Output area

Plymouth and Torbay[8]. Evidence suggests that people in the most deprived areas have a significantly shorter life expectancy than people living in more prosperous areas. To tackle oral health inequalities working in partnership is required. Oral health pathways need to be integrated and embedded in all children's services at strategic and operational levels. Oral health improvements should incorporate evidence-based programmes across all age groups and be based upon the principles of proportionate universalism[9].

Risks and determinants of poor oral health

2.5 The main oral diseases are preventable through optimising exposure to fluoride, limiting consumption of dietary sugars, practicing good oral hygiene and reducing tobacco and alcohol consumption. Focusing solely on individual behavioural change has some short-term benefits for oral and general health, however it is important to make sure that "healthy" lifestyle choices are easy to make and accessible to everyone[10]. Addressing the wider determinants of health and partnership delivery will achieve sustainable improvements. A reduction of risk factor approach can be applied to the promotion of general health and well-being that supports good oral health for people throughout their life[11]. For example, reducing sugar consumption will have a positive impact on tooth decay[12] as well as obesity and stopping smoking will reduce oral and lung cancer, gum disease and cardiovascular disease[13].

2.6 In the South West the proportion of the population meeting the recommended '5-a-day' on a 'usual day' (adults)[14] is higher than the England profile. South West profiles for Reception and Year 6 children who are overweight including obesity are slightly below the England average. The South West profiles for Reception and Year 6 prevalence of obesity are also below England's rate. 61.4% of adults in the South West are overweight and obese, compared to 62.3% in England.[15] Evidence suggests an association between children's weight and tooth decay prevalence and severity, even when other potential influences such as deprivation were considered.

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[8] PHE Fingertipshttps://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/healthstatelifeexpectanciesuk/2016to2018

[9] Marmot M. Fair society, healthy lives: strategic review of health inequalities in England post-2010. London: Marmot Review; 2010.

[10] Peres et al.; Oral diseases: a global public health challenge, https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(19)31146-8.pdf

[11] World Health Organisation (2008) Commission on Social Determinants of Health. *Closing the gap in a generation: health equity through action on social determinants of health*

[12] Public Health England (2014) Local authorities improving oral health: commissioning better oral health for children and young people. An evidence-informed toolkit for local authorities

[13] Department of Health (2005) Choosing Better Oral Health: An Oral Health Plan for England.

[14] PHE: Public Health Profiles: Fingertips 2018-19

[15] PHE: Public Health Profiles: Fingertips 2018-19

Children with underweight or overweight and very overweight are more likely to have experienced tooth decay than those of a healthy weight[16].

2.7 Alcohol misuse can affect health and increases the risks of accidents, injury, and violence. The health harms of alcohol are dose dependent, that is, the risk increases with the amount of alcohol consumed. Alcohol consumption has an association with oral cancers[17]. In the South West, the estimated weekly alcohol consumption is higher (19.6%) than the average for England (18.2%)[18]. The smoking prevalence in adults was slightly lower in the South West at 13.8% compared to England at 14.5%[19].

[16] Public Health England; The relationship between dental caries and body mass index, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/844121/BMI_dental_caries.pdf

[17] https://www.gov.uk/government/publications/oral-cancer-in-england

[18] More than 14, up to 35/50 units (increasing risk) Age Standardised % Health Survey for England 2018

[19] PHE: Public Health Profiles: Fingertips 2018-19

3 Epidemiology of oral diseases

3.1 Nationally there has been a significant decline in tooth decay and an overall improvement in oral health over the past 40 years. However, a substantial proportion of the population experiences high levels of oral disease, most of which is highly preventable[20]. Much of the epidemiological data set out below relates to the National Dental Surveys that have been carried out in recent years. It should be noted that whilst all areas have research providers in place, surveys have not been reported in some areas and as such this data is not complete for all areas of the South West.

Children

3.2 For each cohort of three, five and twelve year old children, the findings from national dental epidemiological surveys show that children in the South West of England present a lower prevalence of tooth decay than the national average. Although there are variances within different parts of the South West. This could be for many reasons but is most likely to relate to the relative lack of deprivation compared to other parts of the country. Nonetheless, there are pockets of deprivation which are likely to present enhanced needs in their localities.

Children 3-year olds

3.3 The prevalence of tooth decay (dmft[21]) in three-year-old children in the South West at 10.4% is below the England average of 11.7%.[22] Higher than national levels of tooth decay, including incisor caries, were seen in Bournemouth, Christchurch and Poole, Gloucestershire, Torbay, Wiltshire and Bristol. This suggests that targeted action in these areas might be considered to discourage long term bottle use and sugary drinks consumption if oral health levels are to be improved. However, one caveat to this assessment is that this data is fairly old and thus future surveys with this age groups should shed more light on the specific needs of these young people in the region.

Children 5-year-olds

3.4 In 2019, the overall proportion of five-year-old schoolchildren in the South West with tooth decay was 20.4%, which is below the national average of 23.4%[23]. There are significant variances within the region, ranging from the highest at 28.9% in Swindon to the lowest at 13.1% in Wiltshire. For 5-year-old children in

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[20] Watt et al; Adult Dental Health Survey 2009: implications of findings for clinical practice and oral health policy, https://www.nature.com/articles/sj.bdj.2013.50

[21] **DMFT** is the sum of the number of Decayed, Missing due to caries, and Filled Teeth in the permanent teeth

[22] 2013 National Dental Survey 3 Year olds

[23] 2019 National Dental Survey 5 Year olds

the South West, the localities with higher rates of tooth decay than England were Swindon (28.9%), Torbay (28.2%) and Devon (25.7%), and those with higher rates than overall the South West were Plymouth (22.6%), Bath and North East Somerset (20.8%). It should be noted that Bournemouth, Cornwall and Dorset did not participate in the 2019 dental epidemiological survey for 5-year-old children.

Children 12-year-olds

3.5 The proportion of 12-year-old schoolchildren in all South West local authorities with experience of tooth decay was 33.3%, slightly below the England average of 33.4%[24]. The prevalence of tooth decay ranged from 45.6% in Teignbridge to 22.2% in The Cotswolds. Twelve-year-old schoolchildren in Sedgemoor, Torbay, Teignbridge, Taunton Deane, West Somerset, Plymouth, Bristol, South Hams, Mid Devon, Cornwall, West Devon, Gloucester, West Dorset, Torridge, Mendip, and Purbeck were all above England's average levels for decayed teeth.

Adult dental health

3.6 The oral health of adults has improved significantly over the last 40 years with more people retaining their natural teeth throughout life. 6% of adults in the South West have no natural teeth (edentate-toothless), which is the same as the figure for England[25].

3.7 Tooth decay was present in 32% of adults in the South West, higher than the 27% in England. In the South West 59% of adults in practice presented mild gum disease compared to 45% in England. 11% of adults in the South West had moderate gum disease compared to 9% in England. The percentage of adults in England with gingival (gum) bleeding on probing was 53%, however in the South West it was 69%. The mean number of decayed teeth was higher in the South West (1.1) than England (0.8). This epidemiological research[26] generally shows adults in the South West to have higher levels of oral health needs than counterparts in England.

3.8 Men from materially deprived backgrounds were more likely to experience higher levels of tooth decay and gum diseases but least likely to visit a dentist[27]. The South West has a higher percentage of adults reporting experiences of oral pain fairly or very often in the previous 12 months. The South West's prevalence of

[24] 2008-09 National Dental Survey 12 Year olds

[25] 2008-09 National Dental Survey of Adults

[26] Adults in Practice Survey , National Dental Survey 2019

[27] 2008-09 National Dental Survey of Adults

tooth wear was 82% (77% England). People in the South West were more likely to wear a denture than nationally.

3.9 The incidence of mouth cancer in Plymouth, Bournemouth, Christchurch and Poole, Bristol, Torbay, Cornwall and Dorset is higher than the national average (14.6/100,000). There is, however, significant variation within the region from 19.9/100,000 in Plymouth to 11.9/100,000 in South Gloucestershire[28].

Vulnerable groups

Adults in Care Homes

3.10 Of the estimated 418,000 adults living in care homes in UK, more than half have tooth decay compared with 40% of over 75s and 33% of over 85s who do not reside in care homes. The Special Care and Paediatric Dentistry South West Needs Assessment (2020) report highlighted that routine domiciliary care is provided differently across the South West. The majority of this care is provided by the Community Dental Service across the region, although there are slightly different arrangements in Devon and Cornwall.

Learning Disabilities

3.11 The South West has a lower prevalence of adults and children with learning disabilities relative to the national average[29]. Children with learning disabilities are more likely to have teeth extracted than filled and have poorer gum health. Adults with learning disabilities are more likely to have poorer oral health than the general population. Furthermore, adults with learning disabilities living in the community are more likely to have poorer oral health than their counterparts living in care.

Homelessness

3.12 Homeless people are more likely to have greater need for oral healthcare than the general population. Homelessness in the South West is significantly lower than in England. For example, in 2018 there were approximately 10,653 people who were homeless in the South West (including those in temporary accommodation and rough sleepers). In order to demonstrate contrast, in London over the same period the estimate was 168,000 people. The top 5 local authority areas in the South West with the highest rate of homelessness per 100,000 people[30] are Bristol, Gloucester, Weymouth and Portland, Purbeck and Plymouth. This is important as

[28] Oral Cancer Registrations 2016-18, PHE Fingertips

[29] PHE Fingertips 2020

[30] Shelter; Homelessness in Great Britain – the numbers behind the story 2018

many people who are homeless tend not to seek out a dentist and clearly being of no fixed abode or in temporary accommodation inhibits access[31].

Looked After Children

3.13 Looked after children[32] are likely to have greater oral health needs. The South West has a lower proportion of children in care than across England, although there are variations within the South West areas, Torbay having more than twice the rate of children in care[33] in the region.

Other vulnerable groups

3.14 There are other potentially vulnerable groups such as migrant workers, refugees and asylum seekers, the medically compromised, as well as those with dental anxiety and dental phobia. There is evidence of a cycle that those in most need have the greatest difficulty in accessing services[34]. Although vulnerable people all have the right to access oral health interventions, they are the very groups in society who are at increased risk of poor oral health and for whom access to dental services is more likely to require flexible options which support engagement that will affect outcomes of patient care in a positive way and address inequalities.

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[31] https://www.nature.com/articles/s41415-020-2490-x

[32] NSPCC: A child who has been in the care of their local authority for more than 24 hours is known as a looked after child. Looked after children are also often referred to as children in care, a term which many children and young people prefer. This includes a child living with foster parents, living in a residential children's home and living in a residential setting like schools or secure units.

[33] Children looked After in England, Department from Education (2018-19)

[34] Tudor Hart, Julian. 1971. "The Inverse Care Law." The Lancet 1 (7696): 405–12.

4 Current service provision

4.1 This section will review current oral health services in the South West. Where evidence is available it will compare the South West with England and different areas within the region.

Primary care

Workforce

4.2 In 2019/2020, 705 dental practices across the South West were contracted by NHSE&I to provide a total of 8.5M UDAs[35]. There were 2,664 dentists in the South West delivering NHS dentistry[36]. This represented 48 dentists per 100,000 population which is slightly higher than the national average of 44 per 100,000.

4.3 Concerns were raised through stakeholder feedback around the recruitment and retention of dentists in the South West. This is particularly the case in rural and coastal areas in the South West's peninsula. Nationally, 75% of NHS practices in England struggled to fill vacancies in the last year. Findings from a survey undertaken by the British Dental Association suggest that nearly 58% of NHS dentists were planning to leave the health service in the next five years. This would have a significant impact on NHS dental services in the South West.

UDAs commissioned.

4.4 In 2019/2020 the average number of UDAs commissioned per person in the South West was 1.52 per person compared to 1.41 per person for England[37], suggesting a higher level of commissioning per capita in the South West. When comparing areas in the South West, individual STP data suggests higher levels per head of commissioned UDAs in Cornwall, BNSSG, Devon and Dorset, with the lowest UDAs commissioned per head in Gloucestershire and BANES, Swindon and Wiltshire.

Access to NHS Dentistry

4.5 In terms of access to NHS dentistry, from April 2019 to March 2020 access for children in the South West was 54.1%, which was higher than the England average of 52.7%[38]. From April 2019 to March 2020 access for adults in the South West overall has fallen by 1.51% to 47.3% which is slightly below the England average of

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[35] Units of Dental Activity (UDAs) are a measure of the amount of work done during dental treatment. More complex dental treatments count for more UDAs than simpler ones. For example, an examination is 1 UDA, fillings are 3 UDAs, and dentures are 12 UDAs.

[36] NHS Digital: https://digital.nhs.uk/data-and-information/publications/statistical/nhs-dental-statistics/2019-20-annual-report

[37] NHSE&I South West 2020

[38] NHS Dental Services: NHS Business Services Authority: June 2020

47.7%. Data suggests that more children in the South West accessed NHS dentistry and slightly less adults compared with the national average.

4.6 Within the South West there are variances to access levels from different STP areas. Within the region, Wiltshire, Cornwall and Gloucestershire, Dorset, South Gloucestershire, and Somerset[39] had the lowest levels of access for children to NHS dentistry. For adult patients, Gloucestershire, Wiltshire, Dorset, Plymouth, Bath and North East Somerset, Swindon and Cornwall, were all below the average levels of access for the region per head of population.

UDA Performance

4.7 Dental service providers are commissioned to provide a certain number of units of dental activity (UDAs) each year[40]. Those who do not reach their minimum agreed delivery of 96% of contracted dental activity are potentially liable for clawback from NHSE&I. Over the last few years, the amount of clawback in the South West has increased from £11.4M in 2017-2018 to £15.7M in 2019-2020. This increase is in line with the national picture.

4.8 Stakeholders and dental providers have suggested that one way to address this is through the application of flexible/transformational commissioning. This aims to refocus a proportion of commissioned UDA-based dental activity or utilise the Statement of Financial Entitlement, offering the potential to increase capacity to deliver specific programmes (ring-fencing) or incentivise activities to improve service stability and meet high needs. Such initiatives could include incentives for NHS primary care dentists, in terms of recruitment and retention with the potential for funded professional development as an adjunct to their 'normal' NHS work.

Complexity of Care

4.9 In terms of the complexity of care the South West had 62.2% of their patients receiving Band 1 treatments in 2019-2020 compared to England with 59.9%. For Band 2 treatments this was 24.1 compared to England with 24.5% and 3.7% Band 3 treatments compared to England with 4.8%. For Band 4 Urgent care the regional data was at 9.6% compared to England with 9.5%. There was some variation to these proportions of care across the 7 STP areas with higher levels of urgent dental care found in Cornwall and Devon with 11.1% and 10.1% respectively.

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[39] The data provide by BGS Business Services Authority is presented in this way and hence there are some STP areas with Breakdowns including some local Authority areas, i.e. in Devon

[40] Units of Dental Activity (UDAs) are a measure of the amount of work done during dental treatment. More complex dental treatments count for more UDAs than simpler ones. For example, an examination is 1 UDA, fillings are 3 UDAs, and dentures are 12 UDAs.

Fluoride varnish

4.10 In 2018-2019 there were 599,188 fluoride varnish applications in the South West which represents 10.7% of the whole population. Moreover 49.1% of children and 1.3% of adults had fluoride varnish applications in this period. There are some significant variations across the region ranging from 42.3% of children in Cornwall through to 57.7% in Dorset.

4.11 Stakeholder feedback suggested the need to develop and encourage targeted interventions aimed at improving access and supporting prevention, especially for children and vulnerable groups[41]. This may be facilitated through evidence-based programmes including community fluoride varnish programmes for children with learning difficulties, care home residents and for other vulnerable groups.

Urgent Care

4.12 Access to urgent care is critical to support the relief of pain and for care following an accident. One in four, (25%), of the adult population in the South West reported that they only went to the dentist when they had a problem (ADHS 2009). In the recent 2018 Adult in Practice survey, 8.2% of patients in the South West stated they had an urgent treatment need compared to 4.9% across England. In 2019-2020 across the South West, NHSE&I commissioned 75,104 'in hours' urgent care slots and 31,596 'out of hours' urgent care slots.

4.13 In reviewing all dental activity in 2019-2020, 4.0% of all children's treatment was categorised as urgent care which is slightly below the England rate of 4.2%[42]. In contrast, 10.8% of paying adult's treatment was for urgent dental care provision and 16.4% of all non-paying adult's treatment was for urgent dental care. This shows a slightly higher level of urgent care take up than England which was 10.5% for paying adults and 16.2% for non-paying adults. There were variations across the region with high levels of adult urgent care (both paying and non-paying) in Cornwall and Devon.

4.14 There are a range of potential barriers for some patients in accessing NHS dental care, which means they are more likely to present in urgent care settings. NHSE&I may wish to consider financial mechanisms for dental practices to take more NHS patients on, thereby reducing the demand for urgent care.

[41] Dental Check by 1 https://dentalcheckbyone.co.uk/

[42] Source: https://digital.nhs.uk/data-and-information/publications/statistical/nhs-dental-statistics/2019-20-annual-report : NHS Dental Statistics for England - 2019-20: Annex 3 (Activity)

Urgent dental Centres (Covid-19)

4.15 In response to the coronavirus pandemic and related IPC[43] guidance, an Urgent Dental Care System was established across England. This was introduced for the operation and integration of urgent care services in primary care dental settings, including designated urgent dental care provider sites[44].

4.16 In the South West, NHSE&I and primary and secondary care dental professionals worked together to establish a regional Urgent Dental Care 'system', in response to the pandemic and in-line with national operating guidance[45]. A series of outcome forms were developed to monitor the outcomes for every patient, with a standard operating procedure to support providers.

4.17 These outcome forms generated data which is based on 45,000 telephone triage records from 8 June to 8 September 2020 (90 days), and urgent appointment records from 28 April to 30 October (26 weeks).

4.18 The patient data was broken down between those who were regular NHS dental attendees and those who were not regular NHS dental attendees. What is most interesting is that 45% of all those that attended appointments were not previously NHS dental patients. What this suggests is that without UDA performance targets, more people who had hitherto not had access to NHS dentistry, were able to access NHS dental services. This was also seen nationally as well as in the South West.

Community Dental Services (CDS)

4.19 CDS and Special Care dental services provide dental care to children and adults with additional needs and to those in socially marginalised groups[46].

4.20 There are currently eight providers of Special Care across the region – three in the North and five in the South. Workforce data for Gloucestershire was unavailable for inclusion in this report.

4.21 The findings from service users surveyed in the supply and workforce oral health needs assessment (January 2020) show that the highest proportion of patients (39%) stated they were able to see a special care dentist within one month. However, 28% reported waiting over three-months for an appointment. Reported

[43] IPC Infection Prevention and Control

[44] Urgent dental care guidance and standard operating procedure, NHS England & NHS Improvement, first published15 April 2020, updated 30 October 2020

[46] https://www.nhs.uk/nhs-services/dentists/dental-treatment-for-people-with-special-needs/

waiting times also varied geographically. These findings suggest that demand exceeds capacity in some areas.

4.22 The challenges around recruitment and retention of dentists are also felt by community dental service providers in the South West. Stakeholder feedback suggests that additional need for special care consultants in the region is required.

4.23 The Special Care and Paediatric Dentistry South West Needs Assessment (2020) report highlighted that most of the domiciliary dental care services are provided by the Community Dental Service, apart from Devon, Cornwall and the Isles of Scilly where there are separate contracting arrangements.

Secondary care

4.24 There are several secondary care providers in the South West of England offering a wide spectrum of specialist dental services, details of which are available in the main OHNA report.

4.25 Tooth extraction due to decay was the most common reason for elective hospital admissions in children aged 6 to 10 years old (nationally and locally)[47]. Dental treatment under general anaesthesia (GA) presents a small but real risk of life-threatening complications for children. Tooth extractions under GA are costly and for most children are potentially avoidable.

4.26 In 2018-2019 more than 7,000 children were admitted to hospital to have one or more teeth extracted in the South West of England. Most of these children (44%) were between the ages 6 and 10 years old. This is in line with the national trend. The information for secondary care referrals is currently held by each individual Provider or Trust and should be reported to NHSE&I.

4.27 There are services which are more appropriately provided in enhanced primary care settings. These would require accredited staff developments, allied with consultant-led direction and governance support.

[47] Royal College of Surgeons of England; Hospital admissions for 5-9 year olds with tooth decay more than double those for tonsillitis, https://www.rcseng.ac.uk/news-and-events/media-centre/press-releases/dental-decay-hosp-admissions/

*Due to an issue with HES coding in East Sussex Healthcare NHS Trust in 2018/19, for which approximately 85,000 records erroneously had all diagnosis and/or procedure codes removed, this value should be treated with caution.

Oral health improvement programmes

4.28 Under the terms of the Health and Social Care Act[48] upper tier and unitary authorities became responsible for improving the health, including the oral health, of their populations since April 2013. Local authorities have a statutory responsibility to provide or commission oral health improvement programmes to improve the health of the local population, to the extent that they consider appropriate in their areas.

4.29 Poor oral hygiene as a result of poor tooth brushing, insufficient exposure to fluoride and consumption of a diet that is high in sugar are the main direct risk factors for an individual's poor oral health. For children there is also an impact on education both in terms of school hours lost due to toothache, subsequent attendance for dentistry and or if the case required surgery under general anaesthetic. Moreover, the circumstances in which people live and work have a profound effect on their health and wellbeing, including their oral health. The causes of oral diseases and the related inequalities that contribute to them, are therefore mainly social and environmental.

4.30 The local authorities that were engaged with as part of this OHNA were universally aware that the impact of deprivation in their localities was a fundamental factor of poor oral health as well as a hinderance to health and wellbeing equality. In most cases their focus has been to encourage oral health interventions in these areas and to ensure that primary care (high street) dentistry is especially well provided for those with higher oral health need.

4.31 Currently the vast proportion of oral health improvement activity in the South West is being delivered by the community dental services providers as per their contract with NHSE&I. Local authority oral health leads would prefer to be more involved in the commissioning of these oral health improvement interventions, particularly given their responsibilities under the Health and Social Care Act 2012.

4.32 Moreover, the situation is neither straightforward nor consistent across the region as there are some local authority areas (Plymouth, Devon and Gloucestershire) that have had this oral health improvement funding transferred to them and who are commissioning this work directly themselves. In these cases, they are working with their community dental service providers to deliver the core elements of these contracts.

4.33 In the north of the region namely North Somerset, Bristol, South Gloucestershire and Bath and North East Somerset, Swindon and Wiltshire and with the support of

[48] Health and Social Care Act

Public Health England, work is being progressed to build and develop an oral health improvement strategy.

4.34 Some local authorities have oral health improvement advisory groups that ensure the delivery and evaluation of their oral health improvement programmes. These groups oversee a range of universal and targeted oral health improvement programmes. Most oral health improvement programmes are directed towards children, and in some cases vulnerable groups and older people.

4.35 A sample of the work with children includes:

- Education of the health workforce who engage with early years and children, including: health visitors, school nurses, children's centres and schools.
- Targeted tooth brushing schemes for primary school and pre-primary school children.
- Programmes delivered in conjunction with the provision of free toothbrushes and toothpaste to pre-school and primary school children.
- Early years programmes that focus on engaging with mothers and their children to support tooth brushing or to supervise the brushing of young children's teeth using fluoridated toothpaste.
- Some more innovative programmes that have worked with schools using videos to support the awareness of good oral health in children and to support the establishment of a good teeth brushing routine and to align this to the school curriculum.

4.36 Several authorities have prioritised the targeting of oral health programmes for key vulnerable groups in the community including the substance misusing population, those who are homeless, the traveller and gypsy community, older people, migrant communities and many who are deemed to be socially isolated. Some of these programmes have included outreach dental interventions and engagement with these populations to provide information about the availability of local dentistry and to offer urgent treatment through the community dental service.

4.37 Local authorities are responsible for commissioning care homes, school nursing services and health visit services to provide an opportunity to integrate oral health improvement into these services. Work is ongoing to target the oral health training of the care staff working in homes and in domiciliary care settings.

4.38 Community water fluoridation is considered as a whole population approach to improving oral health and is associated with the reduction in tooth decay amongst populations. It was also found to have a more significant effect than other sources

of fluoride, particularly toothpaste. There are no water fluoridation schemes in the South West[49].

4.39 All local authorities commission oral health surveys, however samples are not always adequate or indeed they have not been completed. It is important that these surveys are completed. To this end local commitments need to be made towards universal engagement and the completion of future oral health surveys as part of the National Epidemiology Research Programme. To this end:

- All local authorities should continue to commission oral health surveys, including surveys to support the public health outcomes framework.
- Service specifications should be in place to support the planning and delivery of the surveys. This should include robust performance monitoring arrangements to ensure that surveys are completed in line with the national protocol.

[49] https://www.gov.uk/government/publications/water-fluoridation-health-monitoring-report-for-england-2018

5 Patient and stakeholder engagement

5.1 As part of this OHNA four key forms of engagement have been undertaken. This included 56 stakeholder and practitioner interviews, 221 stakeholder and oral health practitioner surveys, 802 patient and a general public/patient surveys, and a set of focus groups with residents and members of the general public. The findings of the stakeholder and practitioners' interviews are incorporated throughout the full OHNA. The key findings of this research are set out below.

Stakeholder and practitioner survey

5.2 Responses came from across the region but with higher levels of response from Devon, BANES, Swindon and Wiltshire, North Somerset, Bristol and South Gloucestershire and Dorset. Respondents came from all over the 'oral health' sector, including dentists, specialist and dental consultants, local authority oral health leads, social and domiciliary care workers, dental nurses, hygienists, school nurses as well as representatives from PHE, HEE and NHSE&I. However, it is worth noting that 54% of respondents worked within general dental services. Key findings included:

- 60% of respondents said NHS general dentistry was accessible to the general public.
- The availability of dentistry is seen by stakeholders as the key barrier to accessing adequate oral health in the region - both the lack of NHS dentists accepting new patients and the lack of locally available NHS practices.
- 60% felt that the area is not well provided by specialist dental services.
- 54% disagreed or disagreed strongly that 'the recruitment of staff to provide NHS dentistry is effective in my area'.
- 80% disagreed or disagreed strongly that 'all parts of my locality are covered by provision that meets the demands of patients presenting'.
- 76% disagreed with the statement - 'the volume of dentists that are available to work with NHS patients is adequate'.
- The area of improvement that was given the most support was 'service growth to meet local demand for NHS dentistry' with 43%, followed by 'flexible commissioning' with 36%, and 'service transformation' with 30%.

5.3 Stakeholders stated that the major priorities for improvement were:

- Dental practitioners felt there was a need to change to the GDS contract, removing UDAs and making the delivery of primary care NHS dentistry more commercially viable.
- The lack of effective general dentistry in the South West is putting additional strain on the hospital, community dental services and emergency out of hours services.
- Cheaper charges are needed for NHS patients.
- Need for more specialist services in primary care.

- Need for more secondary care dispersed across the region, particularly those from Cornwall.
- Need for more communication between providers and commissioning teams to proactively address any potential issues around local priorities, targets for delivery and risk management.

Patients and general public survey

5.4 The survey was disseminated through Healthwatches, Local Dental Committee chairs/leads and via the community and voluntary sector in the region, particularly, those that represent 'hard to reach' groups in the community. Respondents predominantly came from Cornwall 56%, Devon 20% and BANES, Swindon and Wiltshire 13%, with lower response levels from the rest of the region. The key findings included:

- 66% of respondents reported having a regular dentist and 82% had visited their dentist in the last year. 60% visited their dentist for a regular check-up. 32% had visited their dentist for an urgent dental appointment for a problem that had developed.
- 66% reported it took up to 30 minutes to travel to their dentist. 66% got to their dentist by car, 14% preferring to walk. Of those that drive, 43% felt it was either 'easy' or 'very easy' to park, 32% felt it was 'adequate', and 21% felt it was either 'difficult' or 'very difficult'.
- Most respondents prefer keeping appointments during normal surgery hours. If there were to be alternative timings provided additionally, their preference would be for the addition of Saturday surgery and the next preference would be for the extension of the week-day surgery to weekday evenings.
- 78% of those that responded stated they were an NHS patient or wanted to be an NHS patient and 17% stated they were a private patient. 5% did not know.
- 34% of patients engaged stated that they were happy with their private dentist. Otherwise, 24% felt that the waiting list was a barrier and 23% felt that their local NHS dentist was not currently accepting new patients.

5.5 84% of respondents either disagreed or disagreed strongly that 'there is a short waiting list to access NHS dentistry in my area'. 83% disagreed that 'it is easy to find and access NHS dentistry in this area' whereas 86% agreed that 'NHS dentists cost less than private dentists'. When asked to explain their answers some core themes emerged:

- Lack of access to NHS dentistry
- Inability to access dentistry since Covid-19.
- Extensive waiting lists

- Difficulty securing an appointment and or a follow up appointment at NHS dentists
- Concerns about the quality of NHS dentistry
- Perceptions that NHS dentists are not operating during Covid-19, whilst private dentists are
- Experiences of frequent cancellations by NHS dentists.

5.6 With regards to forms of improvement that could be made to NHS oral health in the region:

- 95% agreed that there should be more dental staff to provide NHS dental services
- 88% agreed that free dental health products should be provided in schools for children to encourage good habits early on
- 86% agreed that there should be more information provided locally about where to find a dentist in your area
- 80% agreed that there should be more information provided locally on how people can stop dental problems developing.

5.7 Participants were asked if there could be any further areas of improvement. A range of issues emerged, many centered around the need for more dentists. In summary:

- Access to local NHS dentists should be made easier.
- Better dentist allocation required
- Dentistry should be affordable
- Finding a private dentist is easy, there need to be more NHS dentists
- Improve the quality of care
- Increase capacity in all areas
- Reduce waiting lists
- Urgent appointments should be easier to get for broken teeth and infections
- Work with young people to promote life-long good oral health.

5.8 There were several open-ended questions in the survey, and many people used these as opportunities to raise their frustrations and concerns about what they saw as inadequately resourced dental services. People have had the experience of not accessing NHS dentistry, being on waiting lists for a long time and often suffering from pain and poor oral health without access to a dentist.

5.9 There is equally a real lack of understanding as to why NHS dental services are not simply available to all. Many respondents that are in NHS practices feel that they are second class citizens and that dentists prefer to increase their revenue by

treating fee paying private clients. This frustration reflects the reality that dentists feel they are simply not able to prioritise NHS dentistry because it is not commercially viable for them to do so.

6 Main issues for consideration

6.1 Although the overall prevalence of dental disease is generally lower in the South West of England compared to national averages there are still areas that face oral health inequalities. The key priorities emerging from this OHNA are set out below. They have been based on an assessment of the needs identified through research, data analysis and the engagement of key stakeholders working in oral health and critically the views of their patients and members of the general public.

Key Oral Health priorities for the South West of England

6.2 The need for a **targeted increase of access to NHS dentistry** is a critical issue for key parts of the South West. This is emphasised by the following:

6.2.1 NHS Digital data for 2019-2020 shows that access for children in the South West was higher at 54% compared to 53% in England. However, there were areas below the South West level including Wiltshire, Dorset, South Gloucestershire, Cornwall, Gloucestershire and Somerset. The percentage of adults that accessed NHS dentistry in the South West was 47%, broadly consistent with the national level. However, there were areas below the national level, including Gloucestershire, Wiltshire, Plymouth, Dorset, BANES, Swindon, and Cornwall.

6.2.2 The population in in the South West is set to grow by 7% (an additional 383,703 people) in the next 8 years.

6.2.3 The South West's rate of UDAs per person was 1.52 higher than the England rate of UDA/person (1.41), However there are variances across the region. Data at STP level when compared to the South West suggests higher levels per head of population of commissioned UDAs in Cornwall, BNSSG, Devon and Dorset, with the lowest UDAs commissioned per head of population in Gloucestershire and BANES, Swindon and Wiltshire

6.2.4 Additional NHS dentistry will need to be targeted to those areas of greatest deprivation and demand in the region in order to reduce inequalities. Each STP area has several LSOA[50] with in the top 10% of

[50] Lower Level Super Output Area (LSOA) are a geographic hierarchy designed to improve the reporting of small area statistics in England and Wales. Lower Layer Super Output Areas

the index of Multiple Deprivation. Specific localities have thus been highlighted in the STP appendices.

6.2.5 Residents engaged both through the survey and through focus groups mentioned the difficulty they have been having in accessing an NHS dentist often experiencing extensive waiting times and with many dentists not opening their lists to any further patients.

6.2.6 A regional survey for Special Care and Paediatric Dentistry was conducted earlier this year but the response rate was somewhat low (12%). These responses suggested the need for additional capacity for sedation services as well as support to increase accessibility for patients with special needs.

6.3 There is a need to **support dental care services for older people** in the population. This is emphasised by the following:

6.3.1 There are proportionally more people of retirement age in the South West (22%) compared to England (18%).

6.3.2 By 2028 the older adults (65+) population in the South West will have grown by 21% (an additional 255,000 people).

6.3.3 The projected increase in the proportion of older adults may have implications for the increase of demand for restorative treatments.

6.3.4 This could also lead to an increase in the need for domiciliary dental care services. Currently there are 13 providers working under various contractual frameworks.

6.4 There is a need to support the **recruitment and retention of dentists** working in NHS dentistry.

6.4.1 Stakeholder feedback has highlighted recruitment and retention concerns for dentists in rural and coastal areas.

6.4.2 Joint action with local partners (LDN/LDC, HEE, local authorities) is needed to facilitate the recruitment and retention of dentists and other members of the dental team in rural areas.

6.5 There is evidence of **difficulty experienced by dentists in meeting their contractual targets.**

6.5.1 The increasing amounts of clawback identified at £15.7M in 2019-2020[51].

6.5.2 There is a risk to future service provision because of the lack of commercial viability of certain contracts.

6.5.3 Clawback tends to have a particularly high impact on providers in high need areas with contracts with low UDA values.

6.5.4 Responding to the stakeholders survey, general dental practitioners from across the region, identified concerns regarding the GDS contract and the fulfilment of UDA targets.

6.6 For parts of the region, particularly those in the Peninsula, there are challenges preventing patients **to access Paediatric care services**, particularly for those living towards the western extremities.

6.6.1 Accessing paediatric and paediatric maxillofacial surgery is difficult for many in Devon, and especially Cornwall as these services are only available in Bristol[52].

6.7 Key **specialist services are in need of additional resources**, including special care dentistry and restorative dentistry.

6.7.1 Findings from service user surveys in the supply and workforce oral health needs assessment (January 2020) suggest that the highest proportion of patients (39%) stated they were able to see a special care dentist within one month. However, 28% reported waiting over three-months for an appointment. Reported waiting times also varied geographically. These findings suggest that **demand exceeds capacity in some areas for special care dentistry**.

6.7.2 There is a significant variance regarding the access to consultants in restorative dentistry through secondary care. There are only 4.05 WTE consultants across the South West with 2.1 WTE in Bristol. Stakeholder feedback suggested the potential for strengthening the tier 2 practitioner workforce in primary care which may result in reduced travel time for patients, reduced hospital waiting times and reduced costs. To this end NHSE&I may wish to **undertake an options appraisal exercise to**

[51] Source NHSE&I 2020

[52] Special Care and Paediatric Dentistry South West Needs Assessment Report Draft Jan 2020

identify the most appropriate solution for improving access to more specialised services

6.7.3 Findings from a review of orthodontic service provision suggested the need for **additional orthodontic service provision in Cornwall and Torbay** and an over-provision in Plymouth.

6.7.4 Dental services, including urgent care, should **be enhanced for people with learning disabilities** to provide prevention and treatment.

6.8 There is evidence that there is a **higher incident of oral cancer** in Devon, Cornwall, Dorset and Bristol.

6.8.1 Oral health improvement strategies should include actions to address the increasing incidence of mouth cancer in these areas.

6.9 Evidence from the OHNA shows that there is a **need for further research and review** of the following key areas across the region:

6.9.1 Undertaking a more detailed oral health needs assessment of vulnerable groups should be considered.

6.9.2 A review of orthodontic service provision in other parts of the South West, to mirror that completed for Devon and Cornwall.

6.9.3 A review of the waiting times for new patients seeking access to high street NHS dental services.

6.9.4 To explore options to develop a flexible commissioning framework to encourage providers to undertaken more preventative work, improve patient access and reduce clawback.

6.9.5 A review of the dental workforce capacity, with a particular focus on rural and coastal areas.

6.9.6 Local reviews of the currently commissioned oral health promotion services and their alignment with evidence based guidance from Public Health England.

6.10 Several areas in the South West were unable to complete some of the recent **national dental surveys**. There is a critical need to secure a provider for the dental epidemiology surveys in order to gather more robust and granular data about the current status and trends of oral disease in the South West (there is more detail on where this need applies to in the STP appendix reports).

6.11 In order to **support the commissioning and delivery of oral health services** and to support commissioners, there is evidence to show that there is a need for:

6.11.1 A regional referral management system from primary into secondary care dental services.

6.11.2 Regular and accurate reporting of waiting list data for those seeking an appointment with an NHS dental practice - this should include the number of patients with a practice and patients waiting to get appointments with a practice.

N.B. Specific Oral health Improvement priorities have been set out in the STP Appendices.

Key Oral Health Priorities for each STP area.

6.12 Priorities for **Cornwall** STP

6.12.1 The need for increased access to NHS dentistry is a critical issue for Cornwall, especially in rural areas.

6.12.2 There is a need for additional support of dental care services in line with the increasing numbers of older people in the area.

6.12.3 There is a need to support the recruitment and retention of dentist working in NHS Dentistry.

6.12.4 There is evidence that there are difficulties experienced by Dentists in meeting their contractual targets.

6.12.5 For parts of Cornwall there is difficulty for patients to access key secondary care services, particularly for people living in its western extremities.

6.13 Priorities for **Devon** STP

6.13.1 The need for targeted increases of access to NHS dentistry is a critical issues for key parts of Devon.

6.13.2 There is a need for additional support of dental care services in line with the increasing numbers of older people in the area.

6.13.3 There is a need to support the recruitment and retention of dentist working in NHS Dentistry.

6.13.4 There is evidence that there is difficulty being experienced by Dentists in meeting their contractual targets.

6.13.5 For parts of Devon there is difficulty for patients to access Paediatric care services, particularly to its western extremities.

6.14 Priorities for **Somerset** STP

6.14.1 The need for a targeted increased of Child access to NHS dentistry is a critical issues for key parts of Somerset.

6.14.2 There is a need for additional support of dental care services in line with the increasing numbers of older people in the area.

6.14.3 There is a need to support the recruitment and retention of dentist working in the NHS.

6.14.4 There is evidence that there is difficulty being experienced by Dentists in meeting their contractual targets.

6.15 Priorities for **Bristol, North Somerset and South Gloucestershire** STP

6.15.1 The levels of access to NHS dentistry in North Somerset, Bristol and South Gloucestershire STP are generally above the regional and national average for both children and adults but there is there is significant variability between inner city and rural areas.

6.15.2 There is a need to support targeted programmes to reflect the diversity of the population in the STP and reduce inequalities.

6.15.3 There is a need to support the recruitment and retention of dentist providing NHS services.

6.15.4 There is evidence that there is difficulty being experienced by Dentists in meeting their contractual targets.

6.16 Priorities for **Gloucestershire** STP

6.16.1 The levels of access to NHS dentistry in Gloucestershire STP are below the regional and national average for adults and below the regional average for children. The most affected areas being in the rural areas, particularly towards the East of the STP (Cotswold)

6.16.2 There is a need to support dental care services for older people.

6.16.3 There is a need to support the recruitment and retention of dentist providing NHS services.

6.16.4 There is evidence that there is difficulty being experienced by Dentists in meeting their contractual targets.

6.17 Priorities for **BANES, Swindon and Wiltshire STP**

6.17.1 The levels of access to NHS dentistry in Bath and North East Somerset, Swindon and Wiltshire STP are generally below the regional and national average for both children and adults but there is there is significant variability between more affluent and more deprived areas.

6.17.2 There is a need to support dental care services for older people. This is emphasised for a number of reasons.

6.17.3 There is a need to support the recruitment and retention of dentist providing NHS services.

6.17.4 There is difficulty being experienced by Dentists in meeting their contractual targets.

6.18 Priorities for **Dorset** STP

6.18.1 The need for a targeted increased of access to NHS dentistry is a critical issues for key parts of Dorset.

6.18.2 There is a need to support dental care services for older people in the population. This is emphasised for a number of reasons.

6.18.3 There is a need to support the recruitment and retention of dentist working in NHS Dentistry.

6.18.4 There is evidence that there is difficulty being experienced by Dentists in meeting their contractual targets.

7 Appendix 1 Glossary

Term	Definition
Access Rates	Access rates show the proportion of resident population that attended an NHS dentist in the 24 month period(s) stated.
Average number UDAs claimed	The average number of UDAs claimed for each patient is a fundamental measure of the intensity of resource use.
BAME	Black Asian and Minority Ethnic
Care index	The proportion of teeth with decay that have been filled. It gives an indication of the restorative care received by children with decay by dentists. The higher the care index the more fillings have been undertaken. Analysis of access alongside care index data can indicate if children are accessing, or receiving the dental treatment they require
Clinical Data set	The clinical data set provides information on the range and number of treatments being provided within the three treatment bands. All contractors are required to record details of the treatments provided (including any appliances) for each patient during each course of treatment.
Comparative need	Comparative need is the need between groups of people with similar characteristics
Dental Caries (tooth decay)	Cavities or holes in the outer two layers of a tooth — the enamel and the dentine. Dental caries are caused by bacteria which metabolise carbohydrates (sugars) to form organic acids which dissolve tooth enamel. If allowed to progress, dental caries may result in tooth decay, infection, and loss of teeth.
dmft index	dmft index, is obtained by calculating the average number of decayed (d), missing due to decay (m) and filled due to decay (f) teeth (t) in a population. In five-year-old children, this score will be for the deciduous or primary teeth and is recorded in lower case. In 12-year-old children it reports on the adult or permanent teeth in upper case (DMFT). As tooth decay in children is highly polarised towards lower socio-economic groups, another useful indicator, dmft>0, demonstrates the proportion of children with obvious tooth decay experience.
Domiciliary Dental care	Domiciliary dental care is dental treatment that is provided in the patient's home. Patients who have severe mobility problems that make it difficult for them to leave their home for treatment would benefit from domiciliary dental care where a dentist visits their home and provides dental treatment
Domiciliary dental care	Dental treatment that is provided in the patient's home. Patients who have severe mobility problems that make it very difficult for them to leave their home for treatment would benefit from domiciliary dental care where a dentist visits their home and provides dental treatment
Expressed need or demand	Actions taken by service recipients to utilise health services
Felt need	Perceived needs of lay people or service recipients
HEE	Health Education England
LDC	Local Dental Committee
LDN	Local Dental Network
LSOA	Lower Level Super Output Area (LSOA) are a geographic hierarchy designed to improve the reporting of small area statistics in England and Wales. Lower Layer Super Output Areas
NHSE&I	NHS England and NHS Improvement
Normative need	Need defined by experts

Term	Definition
Patient Charge Band 1	Band 1 course of treatment: covers an examination, diagnosis (including X-rays), advice on how to prevent future problems, a scale and polish if needed, and application of fluoride varnish or fissure sealant.
Patient Charge Band 2	Band 2 course of treatment: covers everything listed in Band 1 above, plus any further treatment such as fillings, root canal work or removal of teeth.
Patient Charge Band 3	Band 3 course of treatment: covers everything listed in Bands 1 and 2 above, plus crowns, dentures and bridges.
Patient Charge Band 4	Urgent care
Patient Charge Bands	Patient Charge Bands of FP17s on Patients: NHS dental treatment is divided into Patient Charge Bands depending on the level and complexity of treatment provided. There are three standard charge bands for all NHS dental treatments:
Patient Flow	Patient Flow In details where the patients treated in an area reside. Significant numbers of patients from outside an area can limit access to services for residents. Patient Flow Out highlights where the patients living within an area have received their dental treatment.
PHE	Public Health England
Population density	The number of people residing in an area (square kilometre/mile)
Sedation	Sedation is used to help people feel relaxed and comfortable about having certain dental procedures done.
STP	STP stands for sustainability and transformation partnership. These are areas covering all of England, where local NHS organisations and councils drew up shared proposals to improve health and care in the areas they serve. STPs were created to bring local health and care leaders together to plan around the long-term needs of local communities. They have been making simple, practical improvements like making it easier to see a GP, speeding up cancer diagnosis and offering help faster to people with mental ill health. In some area, STPs have evolved to become 'integrated care systems', a new form of even closer collaboration between the NHS and local councils. The NHS Long Term Plan set out the aim that every part of England will be covered by an integrated care system by 2021, replacing STPs but building on their good work to date.
The Care Index	The care index is the proportion of teeth with decay that have been filled. It gives an indication of the restorative care received by children with decay by dentists. The higher the care index the more fillings have been undertaken. Analysis of access alongside care index data can indicate if children are accessing or receiving the dental treatment they require.
Treatment on Referral	Treatment on referral occurs when a patient is in need of specialist dental care for example treatment under sedation. This refers only to treatment on referral in primary care.
UDA	Units of Dental Activity (UDAs) are a measure of the amount of work done during dental treatment. More complex dental treatments count for more UDAs than simpler ones. For example, an examination is 1 UDA, fillings are 3 UDAs, and dentures are 12 UDAs.
Unmet need	The gap between service and/or oral health improvement activities and that considered necessary by providers and recipients.