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Author: Miranda Scambler
Date: June 2016
EXECUTIVE SUMMARY

INTRODUCTION

Oral Health is the ‘standard of the oral and related tissues which enables an individual to eat, speak and socialise without active disease, discomfort or embarrassment and which contributes to general well-being’\(^1\). The Health and Social Care Act shifted responsibility for health improvement, including oral health improvement, to local authorities in 2013. Local authorities are now statutorily required to provide or commission oral health promotion programmes to improve the health of the local population, to an extent that they consider appropriate in their areas. They are also required to provide or commission oral health surveys, to monitor local oral health, inform commissioning and evaluate local interventions\(^2\). However, responsibility for commissioning dental services including general dental practitioners (high street dentists) and specialist dental services lies with NHS England.

Despite improvements in oral health in England over the last forty years, many people continue to experience the pain and discomfort associated with oral diseases such as tooth decay and gum disease, which are largely preventable. There are socio-demographic variations in the distribution and severity of oral diseases with vulnerable groups such as younger children, homeless people, and older people experiencing significant oral health problems. This oral health needs assessment describes the oral health of people living in East Sussex and identifies the key issues that should be addressed in future oral health improvement and oral ill health prevention work in order to reduce oral health inequalities in the area. This needs assessment has been developed as the initial step in developing a holistic approach to dental public health within East Sussex.

THE NATIONAL PICTURE OF ORAL HEALTH

The most common oral health problems in the UK are tooth decay (dental caries) and gum disease (periodontal disease), both of which are largely preventable and so are considered widespread public health issues. There are also a number of other oral conditions which impact on oral health and wellbeing, for example: oral cancer; dental trauma (fracture of teeth due to injury); tooth wear (dental erosion, attrition and abrasion); dry mouth; cold sores; mouth ulcers; tooth sensitivity and halitosis (bad breath). Oral health varies by gender, age, socio-economic status and ethnic group and there is a well-established association between poor oral health and socio-economic deprivation. Evidence indicates that risk factors associated with oral disease are more than lifestyle behaviours. Access to, and use of, oral health services play an important role in preventing oral disease, while socio-economic deprivation and environmental factors are strongly associated with ill health, including oral disease. Action to improve oral health also contributes to wider outcomes including reducing smoking prevalence in adults, and reversing the current trend of increasing oral cancer.

THE LOCAL PICTURE OF ORAL HEALTH

The south east of the county has higher proportions of adults in excellent oral health than nationally and overall, with the exception of Hastings, East Sussex has lower levels of decay than the national average, and five year old children with decay are more to have had successful treatment as indicated by the care index. While children’s oral health has improved over the past 20 years, just under a quarter of 5 year olds still have tooth decay, with children in the most deprived quintile three times more likely than those in the least deprived quintile to experience dental caries. East Sussex also has a higher incidence of oral cancer than regionally, particularly in Hastings.

There is a paucity of local data on some vulnerable groups at higher risk of oral ill-health, for example people who are homeless, older people and those in care homes, and those who smoke or experience alcohol or substance misuse. However, the available evidence indicates some areas of good practice locally: a higher proportion of looked after children in East Sussex have had dental care in the last 12 months than nationally or regionally; the average level of decayed, missing or filled teeth for 12 year olds in special schools in East Sussex is three times lower than the national average; and twice the percentage of teeth for this cohort are filled than nationally. East Sussex also has a higher percentage
of adult fluoride varnish treatments than nationally, but an area for improvement is the markedly lower percentage of child treatments.

**SERVICES IN EAST SUSSEX**

Within East Sussex the 91 NHS dental practices are generally located in areas of high population density. East Sussex has a lower percentage of 0-17 year olds seen by an NHS dentist over the last two years (63%) than nationally (70%) across all three CCGs. However, there is no available data on those not attending or attending a private service to put this finding into context. There is also a lack of accessible information in general relating to private dental services within the county. However, people in East Sussex who are not accessing NHS dentistry are more likely to say they prefer to go to a private dentist (30%) than nationally (21%).

East Sussex, and in particular Hastings and Rother CCG, has a higher rate of activity than nationally for Band 3 treatments (which include laboratory work), and higher provision of domiciliary services. The average units of dental activity (UDA) per patient varies across the county, although 7 of the ten wards with the highest UDAs (indicating more complex treatment) are in the most deprived quintile. Those aged over 65 years in East Sussex have the highest UDA rate of any age group, including in some of the least deprived wards in the county. This supports national evidence that those in less deprived areas retain teeth for longer and that older people have more complex oral health needs. The local ageing population indicates increasing need for accessible dental services for older people, and for more complex restorative and prosthetic treatment. With the exception of High Weald Lewes Havens CCG, East Sussex performs fewer procedures needing sedation than nationally, and 5 year olds are half as likely to have teeth extracted.

**RECOMMENDATIONS**

The following recommendations are based on the evidence within this needs assessment.

**RECOMMENDATIONS FOR ORAL HEALTH PROMOTION AND PREVENTION:**

- There should be agreement of a multi-partnership Oral Health Promotion Strategy for the county, aiming to integrate evidence based oral health promotion programmes into existing commissioned programmes. This should aim to:
  - Tackle the social determinants of oral disease
  - Implement a common risk factor approach focusing on the wider determinants as well as facilitating healthy choices to impact on both oral health and wider general health
  - Target vulnerable groups
  - Actively prevent oral disease through community and practice based prevention
  - Encourage parent/carers to take their children to a dentist when the first tooth appears
  - Integrate dental health promotion into general health promotion
- Local oral health improvement programmes should be revised in line with Commissioning Better Oral Health and NICE guidance
- Oral health promotion and prevention should also have a focus on lifestyle factors – including actions to address the high incidence of oral cancer in Hastings
- Oral health promotion services and primary care dental teams should work closely with local stop smoking service to implement national ‘Smokefree and Smiling’ guidance
- There should be targeted oral health promotion in areas of greater deprivation, which have been identified as having greater decay and oral health inequality, particularly in Hastings
- There should be a focus on prevention in “Early Years” settings to address the higher risk of oral health issues for children under 5.
- Evaluation should be integral to all oral health improvement programmes to guide future commissioning
TECHNICAL RECOMMENDATIONS:

- Public health and ward level data relating to oral health and associated risk factors (where available) should be utilised to help inform any oral health promotion commissioning intentions and decisions and make sure they continue to reflect local needs.
- Public health should work with NHS England and the local Dental Committee to promote the implementation of Delivering Better Oral Health in NHS dental practices, focusing on the increase in fluoride varnish applications for children, smoking cessation, alcohol IBAs, and working to improve dental attendance amongst more deprived groups so a full range of preventative care, advice and treatment is accessed.
- A combination of evidence based universal and targeted activities are required to support reducing inequalities in oral health.
- For adults at high risk of poor oral health, new national guidance should be adopted:
  - That there should be regular training for frontline health and social care professionals working with adults at high risk of poor oral health, and
  - That oral health promotion should be incorporated into existing services, including signposting and support to attend regularly.

RECOMMENDATIONS FOR FURTHER WORK

- Local surveys should be planned to address the paucity of data on certain vulnerable groups for example, older people in residential care people with disabilities, impact of poorly fitting dentures on nutrition in older people, people with severe mental health problems and substance misusers and those in more deprived areas
- Work with the PHE Dental Public Health Consultant to develop ways of using routine data to identify areas of poor oral health and monitor impact of oral health improvement
- Local oral health data should be collated in a timely way
- There is a need to consider how to collect more robust data in view of the impact of positive consent on completeness of current dental epidemiological data.
An oral health needs assessment considers conditions and factors that might have a significant impact on oral health and function. It is a systematic process of examining the oral health issues of a population which then can be used to set priorities in the allocation of resources, or health promotion activities in order to improve oral health and reduce oral health inequalities. Since April 2013 local authorities have been responsible for improving the oral health of their communities and commissioning "Dental Public Health Services", specifically: providing or commissioning oral health surveys and oral health promotion. They are also required to monitor local oral health, inform commissioning and evaluate local interventions. However responsibility for commissioning clinical dental services e.g. general dental practitioners (high street dentists) and specialist dental services lies with NHS England.

In October 2014 the National Institute for Health and Clinical Excellence (NICE) published guidance on undertaking oral health needs assessments, developing a local strategy on oral health and delivering community based interventions and activities. It outlines the need for oral health needs assessments to inform joint strategic needs assessments and form the basis of oral health promotion strategies for local authorities. Undertaking the needs assessment will be the initial step in developing a holistic approach to dental public health within East Sussex.

The agreed objective of this needs assessment is to provide a strong focus on preventive oral health. It is not intended to map local services, and instead focuses on identifying oral health needs and assets and how prevention and oral health promotion can be embedded in our local strategies and practices. The Oral Health needs assessment will make recommendations to ensure that oral health inequalities in East Sussex are reduced. The needs assessment will outline national and local evidence of prevalence, vulnerable groups, risk factors and protective factors using available evidence, data and information. This document will concentrate on the epidemiology available at the current time. It is acknowledged that available data is limited and additional work is needed to provide comprehensive insight into oral health needs in East Sussex.

As agreed in the scoping process, this needs assessment does not focus on service mapping or orthodontics as the main aim is to embed health promotion and prevention activities within local policy and practice, and it does not include primary qualitative research.

Context

For an individual to be in good oral health, they should be: free from pain; have good functionality and aesthetic form to their teeth so they can eat, speak and socialise; and they should be clinically assessed as in good oral health with confidence that this will continue in the future. Oral health is important for general health and wellbeing, with oral health problems including gum (periodontal) disease, tooth decay (dental caries), tooth loss and oral cancers. Poor oral health affects a person’s ability to eat, speak, smile and socialise, and risk factors (diet, oral hygiene, smoking, alcohol, stress and trauma) are similar to those of many chronic conditions such as cancer, diabetes and heart disease.
The relationship between oral health and general health is well documented with many general conditions either having oral manifestations or affecting dental treatment. Oral disease is also associated with coronary heart disease\textsuperscript{9,10}, diabetes complications\textsuperscript{11,12}, rheumatoid arthritis\textsuperscript{13} and adverse pregnancy outcomes\textsuperscript{14} amongst others (Figures 1 and 2).

**Figure 1: Problems associated with poor Dental Health**

![Diagram showing various health conditions related to oral health](source pequeños)

Source: British Dental Health Foundation

**Figure 2: Impact of systematic disease on oral health**

![Diagram showing the impact of systemic diseases on oral health](source pequenos)

Source: Beaglehole et al, oral health atlas, FDI World Dental Federation, 2009
The most common dental problems in the UK are tooth decay (dental caries) and gum disease (periodontal disease), both of which are largely preventable and so are considered widespread public health issues. Poor oral health can cause enamel erosion leading to tooth decay (dental caries), gum disease and bad breath. Dental caries are caused by a build-up of bacteria (plaque) in the mouth which produces the acid that causes tooth decay and enamel erosion. This can be caused by high consumption rates of acidic foods such as carbonated soft drinks and fruit juices, and sugars in food.

Oral health varies by gender, age, socio-economic status and ethnic group and there is a well-established association between poor oral health and socio-economic deprivation. Evidence indicates that risk factors associated with oral disease are more than lifestyle behaviours although twice daily tooth brushing with toothpaste containing adequate fluoride, diet, smoking and alcohol do influence oral health. Access to, and use of, oral health services plays an important role in preventing oral disease or identifying it early for treatment, while socio-economic deprivation and environmental factors are strongly associated with ill health, including oral disease. Action to improve oral health also contributes to wider health outcomes, for example reducing smoking prevalence in adults will reduce the current trend in increasing oral cancer, and reducing tooth decay in children will reduce pupil absence.

The changing face of provision of oral health services

In the first half of the 20th century oral health in England was very poor: many people had no teeth, dental decay was almost universal and sepsis was common. It was against this background that dentistry was introduced as an important and popular component of the new National Health Service in 1948, with dentists signing up to deliver treatment on a fee-for-service basis while retaining their status as independent businesses. It wasn’t until the late 1970’s and early 1980’s that the trends started to reverse with adults having their teeth filled rather than extracted, and the first signs of a sustained reduction in dental decay amongst children, due in part to the introduction of fluoride in toothpaste in the early 1970s. By the mid 1990’s it was recognised that the dental system needed to be reformed to support changing oral health needs and NHS Dentistry: Options for change set out a vision for NHS dentistry with prevention at its heart. Subsequent reforms in 2006 comprised of three new elements:

- Responsibility for planning and securing NHS dental services was devolved to local PCTs.
- The patient charges system was changed, reducing the number of charges from about 400 to three.
- The mechanism by which dentists are paid to deliver NHS services was changed from fees for items of service to payment of an annual sum to providers in return for delivering an agreed number of “courses of treatment” weighted by complexity.

NHS dental services are provided in primary care and community settings, as well as in hospitals for more specialised care. The NHS in England spends £3.4 billion per year on dental care, with over a million patient contacts with NHS dental services each week. The value of the private market is estimated at £2.3 billion per year. The NHS is responsible for: providing quality care free to those who are eligible, including children under 18 years and adults on low incomes; subsidising dental care for NHS dental patients; overseeing a “price-regulated market” (setting out clear national patient charges); managing quality of provision; and providing access to appropriate local dentist services.

The Health and Social Care Act shifted responsibility for health improvement, including oral health improvement, to local authorities in 2013. Local authorities are now statutorily required to provide or commission oral health promotion programmes to improve the health of the local population, to an extent that they consider appropriate in their areas. They are also required to provide or commission oral health surveys, to monitor local oral health, inform commissioning and evaluate local interventions. Responsibility for planning and securing NHS high street and specialist dental services moved to NHS England.
This chapter of the needs assessment looks at the national and local policy context of oral health support and provision and gives an overview of the best national evidence for the delivery of oral health promotion and maintenance of good oral health.

### National policy context

The World Health Organisation (WHO)\(^2\) identified that the burden of oral disease, the disproportionate effect on certain populations, and differences within and between population groups mean that oral health constitutes one of 12 key areas for public health intervention. Interventions to address oral health inequalities should incorporate: the individual (focusing on the differential health outcomes and consequences), population groups (differential vulnerability of different groups), the social and physical environment (differential exposure) and society (socioeconomic context and position).

Improving the oral health of the population has been high on the national policy agenda over the last decade, with a wealth of policy and guidance, to support this aim:

- **Forthcoming:** Oral health: promoting and protecting oral health and ensuring access to dental treatment for adults in nursing and residential care homes (NICE, Public Health Guidelines Scope)
- **Tackling poor oral health in children.** Local government’s public health role (LGA/PHE 2016)
- **The state of children’s oral health in England.** (Faculty of Dental Surgery, RCS 2015)
- **Delivering Better Oral Health**- an evidence based toolkit for prevention (PHE 2014)
- **Smoke free and smiling**: helping dental patients quit tobacco (PHE 2014)
- **Local Authorities improving oral health:** commissioning better oral health for children and young people. An evidence-informed toolkit for local authorities. (PHE 2014)
- **Oral health:** approaches for local authorities and their partners to improve the oral health of their communities (NICE 2014)
- **Securing Excellence in Commissioning NHS Dental services** – guidance on commissioning dental services that are cost and clinically effective, offer patients a positive experience and improve health outcomes (DoH 2013)
- **Statutory Instrument 2012 No. 3094** : Dental Public Health functions (Section 4) - Local authorities have a responsibility to ‘provide, or make arrangements to secure the provision’ of oral health surveys and oral health promotion and oral health improvement as part of overall population health improvement
• Dental quality and outcomes framework (DH 2011)
• Healthy lives, healthy people: our strategy for public health in England (DH 2010)
• Dental Contract Reform Programme (DH 2010)
• Improving oral health and dental outcomes: developing the dental public health workforce in England (DH 2010)
• Delivering Better Oral Health: An evidence based toolkit for prevention (DH 2009)
• Valuing people’s oral health. A good practice guide for improving the oral health of disabled children and adults (DH 2007).

National policy levers

• The NHS Operating Framework for Dentistry sets out the Department of Health’s commitment to improving dental services. The three themes in the Operating Framework are: Prevention (commission services with an emphasis in prevention); Access (improve access to dental services); and Quality (ensure dental service are safe and of high quality).
• NHS Outcomes Framework for 2015/16:
  o Decaying teeth (Public Health outcomes indicator) – new indicator
  o Tooth extractions in secondary care for children under 10
  o Patient experience of primary care NHS dental services
Two new indicators have been added to the NHS outcomes framework for 2015/16: one designed to measure improvement of quality of life for people with dental disease, and the other to provide a proxy measure for the health outcomes of children who do not regularly visit the dentist.
• Public Health Outcomes Framework for 2013: The key indicator is tooth decay in children aged 5.

Local policy context

Oral health is becoming increasingly significant as people keep their teeth for longer. It is vital that there is an understanding of dental health as a factor affecting general health in order to develop integrated pathways including dental care to improve overall health. The last oral health needs assessments for East Sussex were conducted in 2008\(^1\). The intention is not to revisit these needs assessments, but to use available data and information to create a new baseline from which to assess the current needs of the East Sussex population.

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3. EVIDENCE OF WHAT WORKS

NICE guidance builds on existing evidence\textsuperscript{25} by suggesting that interventions which aim to tackle risk factors for poor oral health will, in addition, improve general health.\textsuperscript{26} Oral health may be improved by adopting a ‘common risk factor’ approach and by providing evidence-based oral health promotion programmes and interventions to improve people’s diet, oral hygiene, access to fluoride products and access to a dentist\textsuperscript{27} alongside reducing tobacco and alcohol use.

Delivering Better Oral Health\textsuperscript{28} provides an evidence base of interventions to improve oral health, illustrating the advice expected to be given and the strength of the evidence behind this. Appendix 1 outlines the recommendations on prevention advice and intervention from the Delivering Better Oral Health Toolkit. Evidence based interventions are summarised throughout the document in relation to the specific population or context to which they apply.

### Oral Health Interventions

Inequalities in dental health have not narrowed significantly in recent decades and public health approaches are increasingly focusing on the social determinants of child oral health through a range of influences at community, family, and child-level to understanding wider determinants.\textsuperscript{29} Action is needed to tackle the underlying causes of health inequalities. Creating healthier public policies, supportive environments, strengthening community action, developing personal skills and reorienting health services towards prevention will improve oral health. These “upstream” actions should be complemented by specific “downstream” interventions (such as the widespread delivery of fluoride) to effectively prevent oral disease\textsuperscript{30} (Figure 3)

**Figure 3 Upstream/downstream: options for oral disease prevention**

![Upstream/downstream options for oral disease prevention](source)

*Source: Watt RG, From victim blaming to upstream action: tackling the social determinants of oral health inequalities. 2007*

The World Health Organisation (WHO) published a framework to guide action in tackling oral health inequalities as part of its framework in tackling the social determinants of health inequalities.\textsuperscript{31} This framework describes the need to develop context-specific strategies to address both structural and intermediary determinants of oral health inequalities. For work at a local level this involves developing strategies focussing both on individuals and local communities. Central to this is the need to adopt an inter-sectoral style of partnership working. In this sense, more progress is needed to integrate oral health into general health improvement strategies.\textsuperscript{32}
Recent research has collated characteristics of policies that have been found to be effective in tackling health inequalities and summarised how these translate into oral health interventions which can be implemented at local, regional and national level:

- **Structural changes in the environment** - water fluoridation, safe play and recreational facilities, availability of appropriate hygiene and sanitation facilities, availability of affordable healthy foods and drinks
- **Legislative and regulatory controls** - food policies in nurseries and schools, controls on food advertising and marketing, tobacco control policies, violence and bullying policies in schools
- **Fiscal policies** - increase price of sugary snacks and drinks and decrease price of fruit, vegetables, fluoridated toothpastes, toothbrushes and other oral health-promoting products and services
- **Starting young** - focus on supporting families with young children living in disadvantaged communities
- **Community action** - work with and engage with local community, support initiatives such as local food cooperatives, breast and infant feeding peer support initiatives
- **Improving accessibility of services** - addressing barriers to uptake and use of local dental services, linking dental services with other welfare and social services, development of outreach services and engagement with local community as employer
- **Reorientation of health services** - promoting evidence-based preventive support, improve integration with other health and relevant sectors
- **Prioritizing disadvantaged groups** - conduct oral health needs assessment and equity audits to target interventions on marginalized local populations
- **Offering intensive and tailored support** - provide tailored and culturally appropriate clinical and preventive support to groups at greatest risk for oral diseases

Public Health England reiterate this approach by stating the key features of improving oral health are to: address social determinants; take a common risk/health factor approach; promote fluoride, reduce the amount and frequency of consumption of foods and drinks containing free sugars, and improve services to ensure they are preventative focused.

While the trends of oral health in children and young people are showing improvement, the underlying message is that still nearly one quarter of children experience dental decay (25%). The numbers do not illustrate the greater burden of disease for some groups of children and young people for example, children under 5, those who are looked after and those with poor diet, inappropriate feeding practices or stress. The evidence base informing current national guidance shows distribution of tooth-brushing packs to pre-school children to be one example of an effective intervention which positively impacts on inequalities, is a good use of resources, and is a deliverable intervention.

Interventions found to be less effective in reducing inequalities include:

- Information based campaigns (mass media campaigns)
- Written materials (leaflets and posters)
- Campaigns reliant on people opting in
- Whole population health education campaigns

In July 2015 the Faculty of Dental Surgery published a report on “Actions for the Government to Improve Oral Health” in order to ensure: prevention is at the forefront of all policies to improve oral health; there is fair and equitable access to high quality NHS dental care for all; and dental care is delivered by suitably qualified professionals in a safe environment. Key recommendations include:

- **Investment in national oral health programmes** to improve children’s oral health, at a minimum this should be targeted at areas with poor oral health.
• Greater recommendations of oral health in non-dental health curricula
• Inclusion of a section on dental visits in personal child health records
• Advice to social care services to consider oral health in care plans for vulnerable adults
• Ensuring doctors are appropriately trained in key signs and symptoms of oral cancer
• Raising awareness of the impact of sugar on oral health
• Introduction of water fluoridation schemes for all local authorities
• Further investment in researching the links between oral health and general health
• Reviewing the factors affecting access to NHS dentistry
• Expanding specialist paediatric dentistry services to relieve overload of hospital-based services
• Ensuring all children with decay can access specialist paediatric services when needed
• Ensuring clear and consistent application of clinical guidelines
• Commissioners and consultant-led clinical networks working together to support care pathways at a local level
• Prioritising legislation to update the regulation of healthcare professional
• Hospital delivery of specialist dental care for patients: at risk of complications; requiring complex multi-disciplinary procedures or management; or those requiring emergency care.

Interventions for specific populations or risk factors are outlined throughout the course of this needs assessment in the relevant chapters.
4. TYPES OF ORAL ILL HEALTH

The two main diseases affecting oral health are dental caries (tooth decay) and periodontal (gum) disease. There is now clear evidence that both of these diseases can be prevented or markedly reduced, yet large numbers of people continue to experience tooth decay. There are also a number of other oral conditions which impact on oral health and wellbeing, for example: oral cancer; dental trauma (fracture of teeth due to injury); tooth wear (dental erosion, attrition and abrasion); dry mouth; cold sores; mouth ulcers; tooth sensitivity and halitosis (bad breath).

Dental Caries (tooth decay)

Dental caries (decay) occurs when bacteria in the mouth produce acids from sugars in foods. The acids break down the surface of the tooth resulting in pain or abscesses if left untreated. The main causes of dental decay are: the frequency of consumption of sugars; poor tooth brushing and lack of exposure of the teeth to fluoride. The World Health Organisation (WHO) estimates that globally, 60-90% of children and nearly 100% of adults have suffered from dental decay. Young adults, older people and those of a lower socioeconomic status are more likely to experience dental caries; however these groups do not regularly access dental services and often delay attending until a problem requiring treatment arises.

Periodontal disease (gum disease)

Gum disease is the inflammation of the gum around the tooth or teeth caused by bacteria left on the teeth after poor cleaning, smoking, stress and certain medical conditions such as diabetes. It is one of the most common human diseases and early signs can include bleeding gums. Untreated gum disease can eventually spread to the supporting bone causing loose teeth and eventual tooth loss. In many people this is a gradual process over many years which can be halted if detected and treated.

Oral Cancer

Oral cancer (mouth cancer) occurs in any part of the mouth, including; tongue's surface, lips, inside the cheek, in the gums, in the roof and floor of the mouth, in the tonsils, and also the salivary glands and pharynx.

Oral cancer is the 15th most common cancer in the UK with incidence increasing a third in the last decade (figure 4). While predominantly a disease affecting older people, increases are being seen in younger ages. The main risk factors are tobacco, tobacco related products (e.g. betel nut), alcohol consumption and an unhealthy diet. An estimated 91% of oral cancers in the UK are linked to lifestyle factors including smoking (65%), diet (56%) alcohol (30%), and infections (13%).

Source: Cancer research UK 2010 – UK Incidence Statistics
During the past 30 years there has been little improvement in survival rate despite advances in medical treatment and efforts to promote early detection. In 2012, 6,800 people were diagnosed with oral cancer, with two thirds of both diagnoses and related deaths being males. Almost three quarters of oral cancer deaths in 2012 were in people aged 60 and older (Figure 5).

Other oral health conditions

The dental health foundation summarises other common oral health issues:

‘Dry mouth’ (xerostomia) is a condition that means your mouth produces less saliva. This causes bacteria to build up in your mouth and can affect the taste of food and make it harder to eat drier foods. Sometimes it can affect speech and it makes people more likely to have bad breath. Dry mouth can be a symptom of many different problems and can happen as you get older. Quite often it is a side effect of medication - especially heart, blood pressure and depression tablets.

A cold sore is a small, infectious, painful, raised area of small, fluid-filled blisters, usually found where the lip joins the surrounding skin. Cold sores are caused by a virus and usually appear when a person is run down or ill with, for example, a cold or flu.

A mouth ulcer is a painful sore inside the mouth which is usually caused by biting the cheek or tongue, by sharp teeth, by brushing or by poorly fitting dentures. Ulcers can also be an indication of an underlying disease, such as anaemia or cancer of the mouth which is often linked to smoking or heavy drinking. The risk of mouth ulcers can be reduced by a clean mouth, a good diet, and regular visits to the dentist.

Sensitive teeth can mean anything from a mild twinge to having severe discomfort for several hours. It can also be an early warning sign of more serious dental problems. It can be caused by brushing too hard, dental erosion, receding gums, gum disease, tooth grinding, a cracked tooth or filling and tooth bleaching. Sensitive teeth can be prevented by brushing twice a day, considering use of toothpaste designed for sensitive teeth, changing the toothbrush every two to three months, less sugary and acidic drinks, a mouth guard to protect against tooth grinding, and regular dentist visits.

Dental trauma refers to the fracturing of teeth due to tooth grinding, weakening by fillings, trauma to the jaw and gum disease and in some cases can result in loss of the tooth. Treatment can include filling the crack with resin (bonding), veneers and crowns.

Halitosis (bad breath) can be caused by bacteria in the mouth and gums (plaque) and can be a warning sign of gum disease. It can also be caused by dry mouth, other medical problems and smoking, which also causes staining, loss of taste and can irritate the gums. Bad breath can be treated by keeping the mouth clean, regular tooth brushing, fluoride toothpaste, and limiting sugary food and drink.
Types of oral ill health

- The most common dental problems in the UK are tooth decay and gum disease, both of which are largely preventable.
- Globally an estimated 60-90% of children and nearly 100% of adults have suffered from dental decay.
- Young adults, older people and those of a lower socioeconomic status are more likely to experience tooth decay.
- Incidence of oral cancer had increased a third in the last decade.
- An estimated 9 in 10 oral cancers are linked to lifestyle factors including smoking, diet and alcohol.
- Three quarters of oral cancer deaths in the UK in 2012 were in people aged 60 and over.
5. PREVALENCE OF ORAL HEALTH ISSUES

East Sussex population demographics

East Sussex County consists of 2 boroughs (Eastbourne and Hastings) and 3 districts (Lewes, Rother and Wealden) (Figure 6). There are 3 CCGs in East Sussex (High Weald Lewes Havens CCG, Eastbourne, Hailsham and Seaford CCG and Hastings and Rother CCG), each made up of several localities. Wealden is the largest district/borough (152,578 people) and Hastings the smallest (90,754 people), while EHS CCG is the largest CCG (186,835 patients) and HWLH CCG the smallest (166,365 patients).

Figure 6: Map of East Sussex Districts, Boroughs, and CCGs

There are 534,402 residents in East Sussex and approximately 1 in 4 people are aged over 65 years (24%) (Figure 7). East Sussex has a dependency ratio of 0.71 meaning that for every person of working age (16-64 years) there are 0.71 people of non-working age (under 16 years and over 65 years).

Population projections show that over the next 6 years some age groups are projected to increase in size, whilst others will decrease. The net effect is that the population of East Sussex is estimated to increase by 1.6% by 2019 (8,800 more persons). The largest estimated increase is in those aged 85 years and over, with an 11.3% increase by 2019 (2,350 more people aged 85 years and over).
There are 91 dental practices in East Sussex, including one prison dental service, three emergency dental services co-located with special care dental services, and three stand-alone special care dental services. Dental services have developed in areas that are densely populated (Figure 8), with existing dental services across East Sussex concentrated towards the coast, which is the most densely populated area with more than half the population living in the three main urban settlements of Hastings, Bexhill and Eastbourne. 48
The natural environment of East Sussex, with large open rural spaces provides a number of challenges. The 2011-2026 East Sussex Local Transport Plan\textsuperscript{49} states that the inconsistency in the standard of the road network is a real challenge to the efficiency and safety of our network and is seen as a major constraint to achieving economic growth and improving connectivity with the rest of the region. However, the 2008 oral health needs assessment for East Sussex stated that in urban areas dental services are intended to be accessible within a 5 mile radius and in rural areas access within a 15 mile radius.\textsuperscript{50} Comparison with 2008 practice distribution suggests all services are accessible within these geographical access measures.

In East Sussex, 19 out of 329 LSOAs are among the 10% most deprived neighbourhoods in England: 16 of these are in Hastings, two are in Eastbourne and one in Rother. In Hastings, the 16 LSOAs among the most deprived 10% nationally represent 30% of all LSOAs in the district, making Hastings one of the 13 most deprived local authorities in England. However the county also has 22 out of 329 LSOAs in the least deprived 10% in England: 14 of these are in Wealden (Figure 9).\textsuperscript{51}

\textbf{Figure 9: Deprivation in East Sussex by LSOA – IMD 2015}

![Image of deprivation in East Sussex by LSOA – IMD 2015]

\textsuperscript{Source: DCLG, 2015}
Prevalence of oral health issues

Adult oral health has been improving over time. Analysis of the Adult Dental Health Survey (1978-2009) has shown that the percentage of adults in the UK with 21 or more natural teeth has been steadily increasing over the last 35 years (Figure 10), and there has been a corresponding fall in the percentage of adults reporting dental problems.\(^{52}\)

![Figure 10: Percentage of adults with 21 or more natural teeth, by age group, UK 1978-2009](image)

Despite the fact the adult oral health has improved in recent years the 2009 adult dental health survey found that a considerable proportion of the survey population had dental problems. The data was only collected at national and strategic health authority (SHA) level, but this shows the South East Coast (SEC) SHA generally to have slightly more dentate adults (adults with teeth) than nationally, with higher proportions of adults with excellent oral health, and higher percentages receiving brushing advice from their dentist. Despite higher sugar intake than nationally, adults in the SEC SHA had markedly less visible plaque than the national average (Table 1).\(^{53}\) There is a paucity of local and timely data on dental health and ill health, with national surveys released intermittently.

Similarly, nationally children’s oral health has improved over the past 20 years, yet almost a quarter (24.7\%) of five-year-olds still had tooth decay in 2014/15.\(^{54}\) Local information on children and young people is discussed in detail later in the needs assessment.

In many middle and high-income countries across the world, rising living standards and reductions in smoking have led to overall improvements in health. In oral health, a similar trend has occurred with an overall reduction in caries and periodontal disease accompanying the widespread use of fluoridated toothpastes, improvements in oral hygiene and reductions in smoking.\(^{55}\)
Table 1: Dental health and ill health of adults in South East Coast Strategic Health Authority, 2009

<table>
<thead>
<tr>
<th></th>
<th>South East Coast SHA</th>
<th>England</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentate (with natural teeth)</td>
<td>95%</td>
<td>94%</td>
</tr>
<tr>
<td>% with 21 or more natural teeth</td>
<td>85%</td>
<td>86%</td>
</tr>
<tr>
<td>Proportion of adults with excellent oral health (21+ teeth, 18 untreated teeth, no active decay, periodontally healthy)</td>
<td>17%</td>
<td>10%</td>
</tr>
<tr>
<td>% with carious teeth</td>
<td>21%</td>
<td>30%</td>
</tr>
<tr>
<td>% reporting dental pain in last year</td>
<td>67%</td>
<td>70%</td>
</tr>
<tr>
<td>% with one or more crowns</td>
<td>40%</td>
<td>37%</td>
</tr>
<tr>
<td>% given advice on brushing by dentist</td>
<td>85%</td>
<td>78%</td>
</tr>
<tr>
<td>% smoking</td>
<td>21%</td>
<td>22%</td>
</tr>
<tr>
<td>% with high sugar intake</td>
<td>56%</td>
<td>50%</td>
</tr>
<tr>
<td>% with visible plaque</td>
<td>45%</td>
<td>66%</td>
</tr>
<tr>
<td>% attend dentist at least every 2 years</td>
<td>75%</td>
<td>76%</td>
</tr>
<tr>
<td>% type of dental care received during last treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>36%</td>
<td>27%</td>
</tr>
<tr>
<td>Paid for NHS dental care</td>
<td>40%</td>
<td>46%</td>
</tr>
<tr>
<td>Free NHS dental care</td>
<td>20%</td>
<td>24%</td>
</tr>
<tr>
<td>% spent over £50 on last course of treatment</td>
<td>28%</td>
<td>22%</td>
</tr>
<tr>
<td>% whose treatment was affected and delayed by cost</td>
<td>17%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Source: Adult dental health survey, 2009

Oral Cancer

In line with nationally, the incidence of oral cancer (cancers of the lip, oral cavity and pharynx) has been steadily increasing over the last 15 years (Figure 11), with the incidence of oral cancer in East Sussex lower than nationally, but higher than regionally.

Figure 11: Age standardised incidence of oral cancer (per 100,000 populations) 2001-2013

Source: NHS CancerStats
The incidence in Rother and Wealden is consistently less than locally, regionally and nationally, while the incidence in Hastings has been rising markedly since 2008 and has been greater than locally, regionally and nationally since 2010. This may be connected to the higher prevalence of lifestyle related causal factors for oral cancer in Hastings, including having the highest smoking and alcohol prevalence in East Sussex, and having 2.5 times the county rate of adults in drug treatment services. These factors are explored in more detail in Chapter 7 of the needs assessment.

The rate of mortality from cancers of the lip, oral cavity and pharynx in East Sussex has also been rising in line with national and regional rates, although the mortality rate in Hastings is approximately two times higher than nationally and regionally and than any other district or borough in East Sussex (Figure 12).

**Figure 12: Age standardised mortality from oral cancer (per 100,000 population) 2001-2013**

![Graph showing age-standardised mortality from oral cancer in different areas of East Sussex and surrounding regions from 2001 to 2013.](source: NHS CancerStats)
Prevalence and incidence of oral health issues

• The 91 dental practices in East Sussex are generally located in areas of high population density.

• The percentage of dentate adults in the UK has been steadily increasing over the last 35 years, with 94% of adults in the UK dentate in 2009.

• The South East has higher proportions of adults with excellent oral health, and higher percentages receiving brushing advice from their dentist than nationally.

• Children’s oral health has improved over the past 20 years, yet 24.7% of 5 year olds still have tooth decay.

• East Sussex has a higher incidence of oral cancer than regionally.

• In Hastings the incidence of oral cancer has been rising since 2008 and has been greater than locally, regionally and nationally since 2010.
6. WHO IS MOST AT RISK

Vulnerable populations

NICE guidance\(^5^6\) outlines those whose economic, social, environmental circumstances which place them at high risk of poor oral health include:

Figure 13: Those at high risk of poor oral health

People at high risk of poor oral health include those who:

- Are from a lower socioeconomic group
- Are from some Black, Asian or Minority Ethnic Groups
- Are older and frail
- Are or have been in care
- Are homeless
- Are socially isolated
- Have a poor diet
- Smoke or misuse substances
- Live in a disadvantaged area
- Have a physical or mental disability

Source: Adapted from DoH, 2014

'High-risk' refers to groups in which high levels of oral disease are seen, compared with the national average. This includes 'vulnerable' populations that may have relatively low levels of disease but are badly affected by it, for example, people who are homeless or living in relative social deprivation. In addition to the groups outlined above, the risk of oral ill health to children and young people is also well documented.\(^5^7\)

Footnotes:
\(^{56}\) Guidance for local authorities on oral health improvement Strategies. NICE public health advisory committee B

\(^{57}\) Research by the NICE Public Health Advisory committee B looked at promoting oral health to adults living independently who are at higher risk of poor oral health. Effective interventions included:

- Fluoride distribution schemes to targeted "at risk" groups including parents of young children, those recovering from substance misuse, older people cared for in their own homes, stroke survivors and disabled adults. This included distribution of information about appropriate fluoride toothpaste and toothbrushes and training for those engaging with vulnerable groups.
- Increasing the availability and affordability of fluoride toothpaste and toothbrushes for more vulnerable adults
- Ensuring up to date information is available for accessing NHS dental services working. E.g. many of the more vulnerable people are engaged with primary care teams, social care and third sector services who are ideally placed to share good practice and promote better oral health.
“Tooth decay is the most common oral disease affecting children and young people in England, yet it is largely preventable.”

**Nationally:** Tooth decay is the most common oral disease affecting children and young people in England and is the top cause of hospital admissions for 7-9 year olds. Poor oral health can affect children’s and young people’s ability to sleep, eat, speak, play and socialise with other children. Other impacts include pain, infections, poor diet, and impaired nutrition and growth. Poor oral health also has wider impacts at school and for families if a child misses school or when a parent has to take time off work if their child needs dental treatment, or it can be indicative of dental neglect and wider safeguarding issues.

Analysis of the Children’s Dental Health Survey 2013 looked at different aspects of tooth and gum (periodontal) condition and found that only around half (52%) of 5 year olds could be said to have good oral health, declining to less than a third (31%) of 15 year olds (Table 2). Good health is identified by combining the absence of obvious decay experience, no tooth surface loss into dentine and the absence of calculus, a periodontal risk factor implying the need for treatment. The national dental epidemiology programme found that while children’s oral health has improved over the past 20 years, almost a quarter (24.7%) of five-year-olds still had tooth decay in 2015, equating to approximately 166,500 five-year-olds in England who had some experience of tooth decay with 144,900 (21.5%) of five-year olds having one or more untreated decayed tooth. The indicator of the level of tooth decay using the $d_3mft$ index is obtained by adding up the number of decayed (d), missing (m) and filled (f) teeth ($d_3mft$). In 5 year old children this score is for the primary (deciduous) teeth.

<table>
<thead>
<tr>
<th>Table 2: % of children with good oral health, by age, 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5 yrs</strong></td>
</tr>
<tr>
<td>No obvious decay experience</td>
</tr>
<tr>
<td>No Calculus</td>
</tr>
<tr>
<td>No tooth surface loss into dentine</td>
</tr>
<tr>
<td>Good overall oral health</td>
</tr>
</tbody>
</table>

Source: HSCIC, 2015

In comparing national dental surveys of five year olds account must be taken of the methodologies and protocols used. Over the lifetime of the surveys, there are two methodologically distinct periods: from 1992 to 2006, parents were given the choice to opt out of the surveys (known as negative consent); from 2008, parents have been required to give positive consent (opt in) for their child to be included in the surveys. This change has introduced an unquantifiable response bias and means that direct comparison should not be made between surveys from 2008 and the surveys conducted between 1992 and 2006.

Between 1973 and 1983 there was a significant fall in both the percentage of 5 year olds with some dental decay, and the average number of $d_3mft$ for 5 year olds which halved. Comparing national survey data from 2008 to 2015 reveals a clear trend of improvement in prevalence of decay, decreasing from 30.9% in 2008 to 27.9% in 2012 to 24.7% in 2015 (Figure 14). However, comparison
shows that severity of decay has not decreased in line with the prevalence of decay nationally, and the average number of decayed teeth for children experiencing decay has not significantly changed over this time period. This suggests that dental health need amongst children with decay is not being successfully met as we would expect the mean number of decayed to decrease alongside decreases in the prevalence of decay. Nearly a quarter of five year old children still experience dental decay (25%)\textsuperscript{66}, along with 32% of 12 year olds and 44% of 15 year olds.\textsuperscript{57}

### Figure 14: percentage of 5 year olds with some dental decay and mean number of D3mft teeth amongst those with decay: 2008-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
<th>D3mft Teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>30.9</td>
<td>3.45</td>
</tr>
<tr>
<td>2012</td>
<td>27.9</td>
<td>3.38</td>
</tr>
<tr>
<td>2015</td>
<td>24.7</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Source: adapted from ONS statistics 2003-2015

The numbers in figure 14 above do not illustrate the greater burden of disease for some groups of children and young people. For example, estimated decay experience amongst 5 year olds across the regions in England show a marked difference from 21.2% in the South East up to 34.8% in the North West, with even greater inequalities between local authorities (Figure 15).

West Sussex has the lowest rate of dental decay in the country with just under one in ten children aged five suffering from tooth decay (9.5%), while Leicester has the highest rates of dental decay in the country with over half (51%) of five year-olds having poor dental health. This means a five year-old in Leicester is five times more likely to have tooth decay than one of their peers in West Sussex. This variation is such that if children living in the most deprived fifth of councils had the same outcomes as those living in the wealthiest fifth, there would, for example, be nearly thirty-five thousand fewer cases of tooth decay in five-year-olds.\textsuperscript{68}
Dental caries in East Sussex are closely linked with Deprivation, with around 35% of children in the most deprived quintile experiencing dental caries compared to around 12% of children in the least deprived quintile. This will be explored in more detail in Chapter 7 of the needs assessment.

Key identified risk factors for severe dental caries in children and young people include: residing in a deprived area; belonging to some BME groups (particularly where language barriers are an issue); children under 5; looked after children and young people; children and young people from gypsy and traveller communities; poor diet; stress; poor oral hygiene practice particularly from an early age; and inappropriate feeding practices from an early age. The younger children are when they start tooth brushing the lower the proportion developing tooth decay. Research suggests 88% of children who started brushing before the age of one year remained caries free, compared with 81% of those who started between the ages of one and two, and 66% of those who started tooth brushing after the age of two.

Oral conditions can have an impact on children’s quality of life not just functionally, but also psychologically and socially. In the 2013 Survey of child dental health, 58% of children aged 12 and 45% of those aged 15 reported that their daily life had been affected by problems with their teeth and mouth in the last three months, most commonly embarrassment when smiling or showing their teeth, difficulty eating and difficulty cleaning their teeth. Children eligible for free school meals were more likely to report problems in their daily life caused by oral health problems.

Analysis of the 2013 national child dental health survey also looked at behaviours relevant to oral health in England, and found four out of five children brush their teeth twice daily (as reported by parents), similar to levels in the 2003 survey. A minority of children (16% 12 year olds and 14% 15 year olds) reported drinking sugary drinks more than 4 times a day, with those from more deprived families being more likely than others to drink sugary drinks at both ages. Approximately a third of older children reported drinking water four or more times a day. 14% of 12 year olds and 10% of 15 year olds were classified as having extreme dental anxiety (as measured by the Modified Dental Anxiety Scale which includes questions about fears associated with several dental scenarios,) with girls more likely to report anxiety than boys. The national Childsmile programme in Scotland combines targeted and
universal approaches to tackling children’s oral health improvement through core, practice, nursery and school based programmes. Recent evaluation of the programme by the University of Glasgow dental school found that the scheme is not only saving substantial money in treatment costs, costing approximately £1.8 million a year and saving approximately £5 million, but the number of primary children with “no obvious decay experience” has risen from 54% to 68% between 2006 and 2014.

It is worth noting that the data in the national dental health surveys for 5 and 12 year olds are affected by changing from an “opt out” methodology to the positive consent process (opt-in) in recent years, and that data may be skewed as children with decay have been found to be less likely to participate. This was found to be particularly evident for the 2013 survey of 5 and 8 year olds where there was approximately a 20% lower response in the 2013 survey in comparison to the 2003 survey. The Health and Social Care Information Centre concluded that it is probable that at least some of the reduction in obvious decay experience observed between 2003 and 2013 will be skewed as a result of this changing methodology. This is also true of the national dental epidemiology surveys.

**East Sussex:**

In East Sussex there are currently 117,000 0-19 year olds in East Sussex, constituting 22% of the population compared to South East (24%) and England (24%). The number of 0-19 year olds is expected to decrease by 4.3% (5,000 young people) by 2027 however there is variation between different age groups.

In East Sussex the 15-44 (fertile) population is predicted to decline by 4.6% by 2027. The East Sussex birth rate is lower than England but in Hastings is significantly higher and rising, although it is expected to fall in all areas by 2021. The infant mortality rate in East Sussex (3.4 per 1,000 live births) is also lower than England (4.3). In 2012/13 approximately 7% births were preterm births and 1% extremely/very preterm, fewer babies than nationally or regionally.

Figure 16 maps the Income Deprivation Affecting Children Index (IDACI) across East Sussex. IDACI covers only children aged 0-15 living in income deprived households, scored as a proportion of all children aged 0-15 living in income deprived families.

**Figure 16: East Sussex Income Deprivation Affecting Children Index (IDACI), IMD 2015**

Source: ESCC public health intelligence team, 2015
In East Sussex 17% of children under the age of 16 years in East Sussex (approximately 16,000 children) are living in poverty (measured by receipt of means-tested benefits and low income). This is higher than the regional average of 14%, but lower than the England average (20%) and is falling locally. However, there is a much variation within the county. Almost 3 in 10 children in Hastings are living in families affected by income deprivation compared to less than 1 in 10 in Wealden (Figure 16). Deprivation is closely linked with increased risk of health issues.

Other indications of increased risk of health issues include:

- Around 13% of mothers in East Sussex smoke at time of delivery
- Although four out of five mothers in East Sussex initiate breastfeeding, only one in two are still breastfeeding at 6-8 weeks.
- An estimated 4.5%, (240 births) in East Sussex are to women who misuse substances
- Obesity rates are below both regional and national rates for reception children but one in five children still start school overweight or obese, and this increases to almost one in three by year six. East Sussex is slightly above regional rates of overweight and obesity for year 6 children.

**Decay Experience**

East Sussex was one of just 7 upper tier local authorities nationally not participating in the 2013 national Oral Health Survey of three-year-old children so there is limited data available on the oral health of younger children in the county.

In the 2015 National Dental Epidemiology Programme survey of five-year-old children, 436 (58%) of children sampled in East Sussex consented to take part and were clinically examined at school. East Sussex has levels of decay lower than the average for England (Figure 17). There is variation across the area with twice the proportion of five year olds examined in Rother (30%) being affected by caries than in Lewes (15%) or Wealden (12.5%).

![Figure 17: Percentage of 5 year olds with decay experience by LA, 2015](image)

Source: PHE Oral Health Survey of five-year-old children, 2015

NB: There was no data for Tandridge LA in Surrey or Adur LA in West Sussex
Data from the 2015 dental epidemiology survey for five year olds shows that East Sussex has a significantly lower percentage of children with $d_3mft$ (20.3%) than nationally (24.7%), as does Wealden (12.5%) (Figure 18). This corresponds with data from the 2012 national dental survey for five year olds. For the 20.3% of 5 year olds with decay experience, the average number of $d_3mft$ in East Sussex was 2.5, compared to 3.2 in the South East and 3.4 in England.84

The local sample sizes within the national survey are relatively small, particularly in Lewes, and should be interpreted with caution. However, all areas in East Sussex had a sample of over 30 which was the level considered robust in the national survey.

**Figure 19: Mean number of decayed teeth in five year olds, 2015**

The average number of decayed, missing (due to decay) or filled teeth ($d_3mft$) in East Sussex 5 year olds is 0.5, significantly lower than the average for England (0.8) (Figure 19). Within East Sussex, Eastbourne, Lewes and Wealden also have significantly lower mean numbers of teeth with caries than nationally.

*Source: PHE, 2016*

The Care Index is a measure of the percentage of dental decay treated by filling (an index of the extent to which dental decay has been successfully treated by restorative techniques. Data indicates that, for five year olds, East Sussex has a significantly higher percentage of decayed teeth filled (16%) than nationally (12%), with the care index in Rother over twice the national percentage (27.7%). However, there is substantial local variation, with the care index in Eastbourne (8.5%) significantly lower than both nationally and at county level (Table 3).
Table 3: Oral Health Survey of five-year-old children, decay experience East Sussex, 2015

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>East Sussex</th>
<th>Eastbourne</th>
<th>Hastings</th>
<th>Lewes</th>
<th>Rother</th>
<th>Wealden</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 year old pop* (2014/15)</td>
<td>673,960</td>
<td>5,852</td>
<td>1,113</td>
<td>1,109</td>
<td>1,134</td>
<td>844</td>
<td>1,652</td>
</tr>
<tr>
<td>Sample</td>
<td>176,700</td>
<td>762</td>
<td>141</td>
<td>175</td>
<td>72</td>
<td>160</td>
<td>201</td>
</tr>
<tr>
<td>Examined</td>
<td>111,500</td>
<td>436</td>
<td>67</td>
<td>105</td>
<td>50</td>
<td>95</td>
<td>119 (7.2%)</td>
</tr>
<tr>
<td>Mean d₃mft</td>
<td>0.8</td>
<td>0.5</td>
<td>0.5</td>
<td>0.8</td>
<td>0.3</td>
<td>0.7</td>
<td>0.3</td>
</tr>
<tr>
<td>Mean decayed teeth</td>
<td>0.7</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.3</td>
<td>0.4</td>
<td>0.2</td>
</tr>
<tr>
<td>Mean missing teeth</td>
<td>0.1</td>
<td>0.04</td>
<td>0</td>
<td>0.09</td>
<td>0</td>
<td>0.1</td>
<td>0.02</td>
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<tr>
<td>(extracted)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean filled teeth</td>
<td>0.1</td>
<td>0.08</td>
<td>0.05</td>
<td>0.1</td>
<td>0</td>
<td>0.19</td>
<td>0.04</td>
</tr>
<tr>
<td>% d₃mft&gt;0</td>
<td>24.7%</td>
<td>20.3%</td>
<td>22.8%</td>
<td>22.1%</td>
<td>15.1%</td>
<td>30.3%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Mean d₃mft (for % d₃mft&gt;0)</td>
<td>3.4</td>
<td>2.5</td>
<td></td>
<td></td>
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<td>Numbers too small for</td>
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<tr>
<td>robust estimate</td>
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</tr>
<tr>
<td>% decayed teeth &gt;0</td>
<td>21.5%</td>
<td>17.6%</td>
<td>22.8%</td>
<td>18.5%</td>
<td>15.1%</td>
<td>25.1%</td>
<td>10%</td>
</tr>
<tr>
<td>% missing teeth &gt;0</td>
<td>2.5%</td>
<td>1.7%</td>
<td>0%</td>
<td>2.9%</td>
<td>0%</td>
<td>3.1%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Care index %</td>
<td>12%</td>
<td>16.1%</td>
<td>8.5%</td>
<td>12.7%</td>
<td>0%</td>
<td>27.7%</td>
<td>13.4%</td>
</tr>
<tr>
<td>% substantial plaque</td>
<td>1.7%</td>
<td>0.2%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>% with incisor caries</td>
<td>5.6%</td>
<td>3.4%</td>
<td>2.3%</td>
<td>7.8%</td>
<td>0%</td>
<td>3.1%</td>
<td>1.8%</td>
</tr>
<tr>
<td>% sepsis</td>
<td>1.4%</td>
<td>0.7%</td>
<td>0%</td>
<td>0.8%</td>
<td>0%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: PHE, 2016

NB: data in green are statistically significantly better than nationally, while figures in red are significantly worse.

The average number of filled teeth in 5 year olds in Wealden (0.4) is under half the national average (0.10) (Table 3). It is unclear from these figures whether this is due to higher rates of dental attendance in Wealden or difference in clinical dental practices in the area. Data shows that all districts and boroughs in East Sussex have a lower proportion of 0-2 year olds attending the dentist than nationally, particularly in Eastbourne which has the lowest percentage of 0-2 year olds attending a dentist in the whole of Surrey and Sussex. Eastbourne also has a lower proportion of 3-5 year olds attending the dentist than nationally, although Lewes, Rother and Wealden have a slightly higher proportion attending than nationally. There is still significant unmet need possibly reflecting an inappropriate lack of concern for deciduous (milk) teeth. The care index for 5 year olds is 16.1% in East Sussex, less than a third of the care index for 12 year olds (52%) (Table 3 and 4).

The populations examined are relatively small and show significant variation to the 2012 dental survey for five year olds (appendix 2) so caution should be given when interpreting these figures.

The 2008/09 National Dental Epidemiology Programme survey of twelve-year-old children found the South East region to have the lowest levels of decay of any region (27.3% of children affected by caries compared to an England average of 33.4%). Similarly to the 2015 survey for five year olds, variation can be seen across areas within East Sussex, with a higher percentage of 12 year olds in Hastings experiencing caries (36.7%) than both regionally (27.3%) and nationally (33.4%). Data from the 2008/09 national survey for 12 year olds is not shown at upper tier local authority level, although data is available at government office regions and for district/boroughs. The survey shows that the South East region has better oral and dental health than the national average, with significantly lower decay, missing teeth, filled teeth, and a significantly higher care index (Table 4).
Table 4: Oral Health Survey of twelve-year-old children, decay experience East Sussex, 2012

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>South East</th>
<th>Eastbourne</th>
<th>Hastings</th>
<th>Lewes</th>
<th>Rother</th>
<th>Wealden</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 year old pop(^n) (2008)</td>
<td>608,460</td>
<td>101,879</td>
<td>990</td>
<td>1,058</td>
<td>1,156</td>
<td>1,065</td>
<td>1,798</td>
</tr>
<tr>
<td>Sample</td>
<td>120,642</td>
<td>20,941</td>
<td></td>
<td>417</td>
<td>230</td>
<td>371</td>
<td>261</td>
</tr>
<tr>
<td>Examined</td>
<td>89,442</td>
<td>15,170</td>
<td></td>
<td>265</td>
<td>196</td>
<td>232</td>
<td>204</td>
</tr>
<tr>
<td>Mean d(_3)mft</td>
<td>0.74</td>
<td>0.55</td>
<td></td>
<td>0.8</td>
<td>0.5</td>
<td>0.65</td>
<td>0.55</td>
</tr>
<tr>
<td>Mean decayed teeth</td>
<td>0.32</td>
<td>0.22</td>
<td></td>
<td>0.4</td>
<td>0.23</td>
<td>0.29</td>
<td>0.26</td>
</tr>
<tr>
<td>Mean missing teeth (extracted)</td>
<td>0.07</td>
<td>0.04</td>
<td></td>
<td>0.6</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Mean filled teeth</td>
<td>0.35</td>
<td>0.29</td>
<td></td>
<td>0.34</td>
<td>0.25</td>
<td>0.34</td>
<td>0.27</td>
</tr>
<tr>
<td>% d(_3)mft&gt;0</td>
<td>33.4%</td>
<td>27.3%</td>
<td></td>
<td>36.7%</td>
<td>29.5%</td>
<td>31.1%</td>
<td>27.4%</td>
</tr>
<tr>
<td>Mean d(_3)mft (for % d3mft&gt;0)</td>
<td>2.21</td>
<td>2.02</td>
<td></td>
<td>2.17</td>
<td>1.69</td>
<td>2.09</td>
<td>1.99</td>
</tr>
<tr>
<td>% decayed teeth &gt;0</td>
<td>17.5%</td>
<td>12.7%</td>
<td></td>
<td>20%</td>
<td>16.6%</td>
<td>17.2%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Care index %</td>
<td>47%</td>
<td>52%</td>
<td></td>
<td>43%</td>
<td>50%</td>
<td>52%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Source: PHE, 2016

NB: data in green are statistically significantly better than nationally, while figures in red are significantly worse

Within East Sussex (excluding Eastbourne), 12 year olds in Lewes and Wealden have a significantly lower average number of decayed, missing or filled teeth (d\(_3\)mft) than nationally, with the average d\(_3\)mft in Lewes (0.5) just two thirds of the England average (0.74) (table 4). Conversely, Hastings has a higher d\(_3\)mft (0.8) than nationally, and a significantly higher average mean number of d\(_3\)mft than regionally (0.55). Hastings also has a significantly higher percentage of 12 year olds experiencing decay (36.7%) than regionally (27.3%), as well as a significantly greater percentage of 12 year olds with decayed teeth (20%) a significantly higher average number of decayed teeth, and a significantly lower care index than regionally. However, similarly to the survey of 5 year olds, the populations examined are relatively small so some caution should be given when interpreting these figures.
Children in care/previously in care

**Nationally:** Under the Children Act 1989, a child is legally defined as ‘looked after’ by a local authority if he or she:

- is provided with accommodation for a continuous period for more than 24 hours
- is subject to a care order; or
- is subject to a placement order

A looked after child ceases to be looked after when he or she turns 18 years old.

Looked after children and young people share many of the same health risks and problems as their peers, but often to a greater degree. They often enter care with a worse level of health than their peers in part due to the impact of poverty, abuse and neglect. Many looked after children enter care with dental problems, and while oral health is vital to children’s social success and physical health it is easily overlooked in comparison to other issues in these children’s often complicated lives.\(^7\) Children in UK statutory care tend to have relatively high levels of poor oral care, dental neglect and disease,\(^86,87\) little regular dental attendance before care entry and higher treatment needs when attending a dental surgery.\(^90,91\) Evidence used to inform NICE guidance found that the main barriers to looked after children accessing dental care include: travel distance; unplanned placement move; fear; phobia and confidence issues; and an unwillingness of dentists to start a treatment programme if a child is in a short term placement.\(^92\)

As at March 2014, there were 47,670 children and young people in England who had been looked after for at least 12 months, 8,760 of whom were aged 5 years or under. Of this number, 40,240 (84%) had...
had their teeth checked by a dentist within the last year, indicating that 16% of children in care for a year or more had not seen a dentist in that time.\footnote{93}

**East Sussex:** As at March 2014, there were 425 children and young people in East Sussex who had been looked after for at least 12 months, 75 of whom were aged 5 years or under. Of this number, 410 (97%) had had their teeth checked in the last year, indicating that a higher proportion of looked after children in East Sussex have had dental care in the last year than nationally (84%) and regionally (83%).\footnote{94} While there has been greater fluctuation in the percentage of looked after children who have been seen by a dentist in East Sussex than nationally and regionally, the proportion has remained consistently higher for the last 4 years (figure 20).

![Graph](image_url)

**Figure 20:** % of looked after children who have been in care for 12 months or more and have seen a dentist within this time, 2011-2014.

Source: DfE, 2012-2015

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**INTERVENTIONS**

Statutory Guidance on promoting the health and wellbeing of looked after children states that every looked after child should have a health plan forming part of their care plan. This should include arrangements for the child’s medical and dental care appropriate to their needs, including:

a. routine checks of the child’s general state of health, including dental health;

b. treatment and monitoring for identified health (including physical, emotional and mental health) or dental care needs;

c. preventive measures such as inoculation;

d. advice and guidance on promoting health and effective personal care

It is recommended that

- carers of babies and very young children take them to their own dental check ups so they get used to having teeth checked at an early age.
- Clear explanations are given to children or young people about any further consultations, treatment or care needed.

Footnotes:

Older people

Nationally: Between 2015 and 2020, over a period when the general population is expected to rise 3%, the numbers aged over 65 are expected to increase by 12% (1.1 million); the numbers aged over 85 by 18% (300,000); and the number of centenarians by 40% (7,000). There has been a sustained increase in the proportion of people retaining functional dentition (a useful number of natural teeth) into retirement age during the past forty years. In 2009 53% of adults over 85 were dentate, compared to 95% of 55 to 64 year olds and 99.9% of 25 to 34 year olds. Forty years ago care of older patients focused on fitting full sets of dentures, but with better oral health and new treatments and technologies, the retaining of natural teeth brings a new set of challenges, such as root decay and excessive tooth wear. For older people, treatment can be complicated, and preventing oral diseases helps keep treatment simple and helps people to stay healthy. Despite the increased likelihood of older people retaining teeth, those in the most deprived areas have fewer teeth than those in the least deprived areas and have been found to have poorer nutritional status as a result.

In 2009 nearly one in five adults wore removable dentures (partial or complete). This includes the 13% of all adults who also had natural teeth (partially dentate adults) and the 6% of all adults who were edentate. Wearing dentures can be a risk factor for the progression of dental caries and periodontal disease in existing teeth because they may make oral hygiene more difficult and can create food traps, especially if poorly designed or ill fitting.

There are a number of age related dental problems and complications in later life, including: reduced salivary flow which plays an important protective role against plaque acid; receding of gums which can lead to onset of new decay on newly exposed tooth surface; reduced manual dexterity making routine oral hygiene more problematic; changes in dietary practice facilitating tooth loss, for a variety of reasons such as reduced access to shops; and reduced mobility making dental services more difficult to access. National evidence has found the main barriers to dental care for older people to be: low user/carer perception of need, living alone, income (cost of services), gender, lack of education, cultural barriers, lack of adequate dentist skills particularly in treating frail elderly and people with dementia, other access issues, lack of adequate equipment in care homes, transport difficulties and dental anxiety.

Age related illness can also impact on oral health. For example, a 2005 literature review found that as dementia increases, so do: decayed teeth, gum disease, pain, oral pathology, eating, nutritional and swallowing problems, need for support with mouth care and resistive behaviour. To ensure good oral health for people living with dementia, the research found that sugary food and drink in between meals should be avoided, teeth should be brushed twice a day with high fluoride toothpaste, there should be regular meetings with the dentist and oral health risk assessments and care plans in care homes, and there should be effective support for mouth care. A large provider of residential and nursing care in the UK estimates the proportion of adults living with dementia in their care homes to be around 43%.

A recently published study carried out in London found that older people with unmet dental health needs and those who experienced a lack of confidence and trust in their dentist were more likely to experience poor oral health related quality of life (PHRQOL), reinforcing the importance of the dental patient experience in healthy ageing and wellbeing.

East Sussex: Of the 534,405 residents in East Sussex, 24% are aged over 65 years, and 4% are aged over 85 years. Bexhill, Seaford and parts of Eastbourne and surrounding areas have the oldest age profile in the County. 14% of older people are affected by income deprivation. The percentage is highest in the West Hastings and St Leonards localities, where about a quarter of older people are affected, and lowest in High Weald, where about 1 in 10 older people are affected. Over the next 6 years, the largest estimated population increase in East Sussex is in those aged 85 years and over, with
an 11.3% increase by 2019 (2,350 more people aged 85 years and over). A national oral health survey for people over 65 years is currently underway, with results expected to be published early in 2017 which will give us insight into the oral health of our older population.

Older people in residential care

Nationally: The National Institute for Health and Care Excellence (NICE) are currently developing guidance promoting oral health, preventing dental health problems and ensuring access to dental treatment for adults in nursing and residential care homes. The need for this guidance is based on evidence suggesting oral cancer is increasing; more adults are retaining their teeth but root decay in adults is increasing; and poor oral health in older people can have wider ranging health implications beyond obvious acute symptoms such as pain in the mouth and jaw, for example by exacerbating symptoms of chronic conditions.

Age UK report there are an estimated 3,800 nursing homes and 10,500 residential homes providing care for around 431,500 elderly and disabled people, 414,000 of whom are over 65.

A recent survey by the British Dental Association found there to be inconsistent delivery of oral health by care home providers, high levels of unmet oral health need amongst residents, reluctance of staff to meet oral health need, and a lack of staff training. Existing poor oral health, together with treatments for chronic medical conditions (including dementia) decreasing salivary flow, add extra layers of complexity in meeting oral health needs of adults living in care homes.

A UK oral health survey of dependent older people supports these findings, key conclusions being:

- Standard oral health training programmes and materials are needed for care in your home services as oral health is not prioritised and a third of services did not undertake initial oral care and hygiene assessments.
- Within adult residential care, nursing homes and hospices, lack of access to suitable, timely and responsive treatment services is a common issue, although over two thirds of staff had trained on a variety of oral health issues and in many cases oral care needs were assessed and systems in place to assist daily oral cleaning. The impact of dementia on oral health was raised several times.
- The availability of suitably trained and equipped personnel in hospitals with inpatient facilities for those aged 65+ was variable and issues such as the loss of dentures was clearly an occasional but widespread occurrence.
Oral care of patients admitted to hospital is often poor, particularly for patients who are unable to self-care e.g. on geriatric wards, or whose conditions make poor oral health more likely e.g. receiving radiotherapy or chemotherapy. Good oral care in hospital can reduce length of stay, support eating and drinking and enable patients to leave hospital in better shape. A Mouth Care Matters initiative has been piloted in East Surrey to put this into practice, with the aim of ensuring all admitted patients at high risk have an oral care plan.

**East Sussex:**
Approximately 6,900 people (1.3% of the population) live in care homes, with the highest percent in Bexhill locality (2.4%). There is little information available on the oral health of older people in residential care in East Sussex. However, Health Education England, in association with the University of Kent, are currently working on a project to improve the oral health of older people in Kent, Surrey and Sussex, paying particular attention to those in care homes. This project includes the creation of an information “hub”: [http://www.iophpi.co.uk/](http://www.iophpi.co.uk/); oral health training for carers, and establishing quality standards for oral healthcare of older people. This project also involves development of a rigorous evaluation and research programme to establish the evidence base for this work, and evaluate the impact of the project on both oral health and working practices.

**British Minority Ethnic (BME) Groups**

**Nationally:** The Health Survey for England has stated that children from all minority ethnic groups (especially Pakistani and Bangladeshi children), are less likely to have ever visited a dentist. For those who had visited a dentist, the reason cited was because of a dental problem rather than for a routine dental check-up. Research by the Race Equality Foundation suggests that while the links between oral health and ethnicity are complicated and often confounded by socio-economic status, the prevalence of certain oral diseases is higher in some ethnic groups. The relationship between ethnicity and dental caries is complex and controversial, yet evidence suggests that, even after adjusting for socio-economic status, higher levels of dental caries are generally seen in the primary teeth of children of Pakistani or Bangladeshi origin.

Research suggests that longer weaning and the addition of sugar to bottled drinks is more common amongst Asian women in England than people who are White British, and within some cultures the link between sugars and religious ceremonies could also impact on oral disease. Asian adults have been found to have higher levels of gingivitis (gum disease) than other ethnic groups. Despite evidence that some ethnic groups are known to have a higher prevalence of certain oral diseases, research shows people within BME groups are less likely to access NHS dental services. Barriers to access include: cost; language problems; mistrust of dentists; and culture and religious influences.

**East Sussex:** 1 in 12 (8%) of the population belong to ethnic groups other than White British or Irish, and 1 in 8 (13%) children. This compares to 19% of the population of England and 15% of the
population in the South East belonging to ethnic groups other than White British or Irish. Within East Sussex, Eastbourne has the largest population which is Non-White-British (13%), and Rother the smallest (6%). Asian ethnic groups make up the largest non-white categories in East Sussex (1.7%), the South East (5.2%) and across England (7.5%).

The ethnic diversity is gradually increasing across the county although the population remains predominantly White British. Since 2001, census data shows a 2% increase in ethnic groups other than White British or Irish in East Sussex, with the largest population in Eastbourne (7.6%). The greatest increase of an ethnic minority group for the county as a whole has been the “Other-White” population (from 2.3% in 2001 to 3.6% in 2011), followed by “Other Asian” (from 0.2% to 0.7%). However, the growth of minority ethnic groups was markedly lower in East Sussex (2.7%) than nationally (6.3%) and regionally (6%). Significantly for this needs assessment, the percentage of the population who are Pakistani or Bangladeshi has not changed within this period, although the number of Asian adults overall has increased by 0.6%.129

Dental epidemiological surveys and dental activity data do not report by ethnic group so there is no local information about the oral health of people from BME groups.

### Homeless People

**Nationally:** According to national research, many of the physical illnesses from which homeless people suffer (which are predominantly acute in character), could be easily prevented with adequate housing and access to primary care (especially minor infections of the upper respiratory tract); but among homeless people they are more likely to persist and lead to complications.130 There are many factors contributing to poor oral health and dental hygiene of people who are homeless or living in temporary accommodation: chaotic lifestyles leading to a lack of eating and personal hygiene routines; low disposable income; a lack of awareness of dental and oral health issues; and an acceptance that poor dental health is the norm. All of these factors can be further undermined by the high prevalence of mental health (including emotional problems, depression, anxiety / panic attacks, self-harming and schizophrenia) and substance misuse problems amongst homeless people.131,132 Both mental-health problems and substance misuse can expose homeless people to a greater risk of dental trauma (injury) by making them more likely to be involved in accidents or violence. Substance misuse also has a range of serious implications for oral health, for example widespread use of tobacco use among homeless people has a number of adverse effects on the mouth including exacerbating gum disease and oral cancer risk.133,134,135

An extensive study of oral health and homelessness in East London found 99% of people accessing a dental service for homeless people between April 2009 and September 2011 needed treatment, of the nine people with no decay, three were edentulous. Nearly two thirds of people (61%) completed their treatments (between 1 and 18 appointments) but only 28% did so with no failed or cancelled appointments. The study showed a significant need for oral healthcare services for this population and highlighted that flexibly delivered dental services, embedded in local health and social networks, seemed to promote uptake in these clients who normally find it extremely difficult to find dental care services elsewhere.136

The life circumstances of homeless people can often mean they are among those most in need of dental treatment, yet this group can face major barriers in accessing dental services.137 General Dental Services (GDS) are the main route to accessing primary dental care in the UK, and while these are appropriate for, on most occasions, homeless families with children, there can be access barriers for single homeless people, such as: cost; difficulty keeping appointments; low sense of priority of oral health and a reluctance by dentists to register homeless patients due to a perception of them being problematic. Community Dental Services (salaried services run by CCGs) are usually free at the point of
entry and the most likely source of dental care for homeless people, with many Community Dental Services offering outreach to tackle access difficulties for homeless people.\textsuperscript{138}

**East Sussex:** There is relatively little information available on the oral health needs of the homeless population in East Sussex. However, in March 2015 a three day pop-up hub was set up in Eastbourne through which a GP was available for three hours a day to review medical needs of the homeless population. Ten people were seen in this time and had a considerable amount of poor dentition ranging from one edentulous individual to severe wear, fractured teeth, loss of restorations, periodontal disease and general poor hygiene exacerbated by smoking, drinking, poor nutrition and stress associated with being homeless. There was also some evidence of self-medication for dental pain leading to substance misuse.\textsuperscript{138} A 6 week audit of homeless health was undertaken in East Sussex in autumn 2015, which included looking in more depth at the oral health needs of this population. The audit found that, similar to the national picture, just 58\% of the 285 homeless people included in the audit were registered with a dentist. One quarter (27\%) reported having a dental health problem: 17\% within the last year and 10\% over a year ago.\textsuperscript{140}

**People with disabilities**

**Nationally:** Special Care Dentistry is concerned with providing and enabling the delivery of oral care for people with an impairment or disability, where this terminology is defined in the broadest of terms. Thus, Special Care Dentistry is concerned with: ‘The improvement of oral health of individuals and groups in society, who have a physical, sensory, intellectual, mental, medical, emotional or social impairment or disability or, more often, a combination of a number of these factors’.\textsuperscript{141}

Evidence suggests people with disabilities have poorer oral health when compared to the general population.\textsuperscript{142,143} Many people with disability are functionally independent, living in their own homes. Others are dependent on regular support but still live independently or with their families.\textsuperscript{144} As more people retain their teeth, this presents challenges to the dental profession in providing care to medically compromised, multiply disabled people who may require a wide range of interventions at a time in their lives when they are less able to cope with treatment.\textsuperscript{145}

Challenges such as this are likely to increase as there are multiple factors likely to add to the demand for special care dentistry, some of the key factors being: lower mortality rates; higher than average morbidity rates of children born prematurely; longer life expectancy; more older people who develop disabilities later in life; more complex or chronic conditions needing inpatient dental treatment; impact
of cultural shift towards retaining natural dentition in later life; need for consistency in transition from children’s to adult services.\textsuperscript{146}

Barriers to good oral health for people with disabilities include: poor professional and personal understanding of need, poor motor control, lack of prioritisation of dental health appointments if juggling many different health needs, eating or drinking difficulties aiding tooth decay, sugar based medication and high calorie supplements, compliance with an effective oral hygiene regime, transport issues to dental appointments, and cost of care (direct and indirect).\textsuperscript{147,148,149}

A learning disability (LD) is defined as ‘a significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence) with a reduced ability to cope independently (impaired social functioning); which started before adulthood, with lasting effect on development’.\textsuperscript{150}

There are an estimated 210,000 people with severe or profound learning disabilities: 65,000 children; 120,000 adults and 25,000 older people.\textsuperscript{151} People with Learning Disabilities tend to follow the same trends in oral disease as the general population; however they have poorer oral hygiene, and some people have conditions that have oral health implications. For example people who have Downs Syndrome have increased risk of periodontal disease and tend to breathe through their mouth instead of nose which can compromise mouth hygiene. Similarly people with cerebral palsy may have dental abrasion from Gastro-oesophageal reflux.

Research\textsuperscript{152,153,154} shows that compared to the general population, adults with learning disabilities are less likely to have functional dentition, have poorer oral hygiene, have greater prevalence and severity of gum disease, have consistently higher levels of untreated decay, are less likely to have regular contact with dental services, and are less likely to clean their teeth twice a day. However dental decay rates are similar to the general population and those with profound learning disabilities are likely to have poorer oral health than those with mild learning disabilities.

The main barriers to dental care for adults with learning disabilities tend to be\textsuperscript{155}: lack of perceived need and inability for communicating needs and for self-care, lack of carer perception of need, challenges of healthy diets for those with eating or drinking difficulties, inadequate professional training to treat patients with complicated needs, physical access to dental premises and transport access and costs, and negative stigma about adults with learning disabilities.\textsuperscript{156}

In 2015, the first national survey of its kind looked at the oral health of 66\% of 5 year olds and 50\% of 12 year olds attending special schools in England in 2013-14. This study does not include children with disabilities and special educational needs who are educated within mainstream schools.\textsuperscript{157} 149 of 152 local authorities took part in the survey, which identified that 22\% of five year old children attending special schools had experience of obvious dental caries, with an average of 0.88 primary teeth affected by decay (decayed, missing or filled teeth (d3mft)). This compares to 24.7\% of 5 year olds in mainstream schools with dental caries, with an average d3mft of 0.8.\textsuperscript{158} The proportion of five year olds attending special schools who have had one or more teeth extracted was 6\%, significantly higher than the 2.5\% of five year olds in mainstream schools, with the vast majority of extractions requiring hospital admission.

Of the 12 year olds that were surveyed, 29\% of those in special schools had obvious dental caries, with an average d3mft of 0.69. This compares to 33\% of 12 year olds in mainstream schools with dental caries, with an average d3mft of 0.74.\textsuperscript{159} However, the survey identified that children attending special schools who get decay have more teeth affected by this decay. For children both in special schools and in mainstream schools there can be significant regional variation in oral health. Additionally, children with behavioural, emotional and social disabilities in both age groups were found to have higher prevalence of decay and significantly more plaque present than children with other types of disability.\textsuperscript{160}

\textbf{East Sussex}: One fifth of residents in East Sussex (20%) report having a limiting long term health problem or disability.\textsuperscript{161} National evidence\textsuperscript{162} suggests that within East Sussex there is less decay and
greater access to treatment for those with decay. The mean dmft for twelve year olds in special schools is approximately 0.22, compared to 0.69 nationally. Of those teeth that are decayed, the percentage of teeth treated with fillings in East Sussex is over twice (80%) the percentage filled nationally (35%). Numbers for five year olds were too small to produce robust estimates. There is no local information available for the oral health or adults with disabilities.

People with mental health issues

**Nationally:** At least 1 in 4 people will experience a mental health problem at some point in their life, 1 in 6 adults has a mental health problem at any one time, and 1 in 100 have a severe mental health problem. There is no universal definition of severe mental disorders but the term usually refers to illnesses such as schizophrenia or bipolar disorder.

A European survey put the total population-based annual prevalence of serious mental illness at approximately two per thousand. There are limited studies looking at the oral health needs of people with serious mental illness. However, the national evidence that exists shows that people with serious mental illness experience an erosion of functioning in day-to-day life over a protracted period of time, have a greater risk of experiencing oral disease, higher rates of tooth loss gum disease and dental decay, poor mouth hygiene and have greater oral treatment needs than the general population. Despite this, oral health has never been seen as a priority in people suffering with serious mental illness. Many drugs routinely prescribed to those with serious mental illness lead to changes in physiology, in particular, antipsychotics, antidepressants and mood stabilisers can cause xerostomia (dry mouth) which can lead to periodontal disease. Smoking is a risk factor for poor oral health and far greater rates of people with serious mental illness smoke compared to the general population. It is estimated that of the 10 million smokers in the UK, approximately 3 million have a mental health condition, with smoking the single largest contributor to a 10-20 year reduced life expectancy. Since the mid 1990’s, smoking in the general population fell from around 27% to 19% by 2014, while for people with a mental health condition estimates suggest smoking has remained at about 40% throughout the past 20 years. Smoking is looked at in more detail in Chapter 7 of the needs assessment.

The national adult psychiatric morbidity surveys (AMPS) suggest a prevalence rate for a probable serious mental disorder of 5 per 1000 for women and 6 per 1000 among men, although household surveys of this kind are likely to underrepresent some conditions where adults are more likely to be homeless or in an institutional setting.
**East Sussex:** The 2015 Acute and Emergency Mental Health Needs Assessment for East Sussex\(^{177}\) estimated the incidence of psychosis in East Sussex based on the 2007 APMS survey and 2015 mid-year population estimates. The incidence of psychosis is the number of people who develop an illness for the first time, per year, in a given place. Crude estimates suggest an incidence of 18 per 100,000 population in East Sussex, with 56 new cases annually. These estimates range from 22 per 100,000 in Hastings to 15 per 100,000 in Rother and in Wealden.\(^{178}\) The number of people with mental health needs requiring support is predicted to remain relatively constant between 2015 and 2030. This will differ between genders with a small increase in all categories in males (2%) and no real change for females.\(^{179}\)

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**INTERVENTIONS**

- A national review of evidence in 2011\(^{i}\) suggests that oral health advice from a healthcare professional may encourage those with serious mental illness to brush their teeth on a regular basis, have regular dental check-ups and seek help in a dental emergency.
- It has also been suggested that a partnership approach to accessing preventative and treatment oral health services involving patients, community mental health teams and dental teams may also be beneficial.\(^{ii}\)

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**Footnotes:**

- \(^{ii}\) Wieland et al., 2010. Partnership evaluation: public mental health and dental services. Australasian Psychiatry vol./iss. 18/6(S06-11), 10:89-8562;1440-3665.
SECTION SUMMARY

Who is most at risk?

- Information describing oral health of vulnerable groups in East Sussex is limited

Nationally

- Child tooth decay has been declining over the last 40 years, yet it is the top cause of hospital admissions for 7-9 year olds.
- Children more at risk include those: from deprived areas; from lower socio-economic groups; under 5 years old; who are Looked After; from certain BME groups; with poor diets or inappropriate feeding practices in early years; and children who are stressed.
- A combination of universal and targeted oral health improvement significantly impacts on both decay experience and cost savings.
- There has been a sustained increase in the proportion of older people retaining functional dentition into retirement age over the last 40 years, yet this brings a new set of challenges, such as root decay, excessive tooth wear, and age related dental problems increasing need for dental services.
- There is a significant need for flexible oral health services for homeless people.
- People with disabilities have complex health and care needs associated with poorer oral health and less regular contact with dental services.
- Children with learning disabilities are more likely to have teeth extracted than filled and have poorer gum health.
- People with serious mental illness have higher rates of tooth loss, gum disease, dental decay, and poorer mouth hygiene than the general population.
- Smoking is a risk factor for poor oral health, and smoking prevalence is far greater amongst those with serious mental illness than the general population.

East Sussex

- Overall there are lower levels of decay than the national average.
- Hastings has higher levels of decay than locally, regionally and nationally.
- The care Index for 5 year olds in East Sussex is significantly higher than nationally, indicating high levels of decay successfully treated by restoration.
- A higher proportion of looked after children in East Sussex have had dental care in the last year than nationally and regionally.
- A local audit suggests just under 60% homeless people are registered with a dentist (similar to nationally).
- The average d3mft for 12 year olds in special schools is three times less than the national average, yet twice the percentage of teeth are filled in East Sussex than nationally, i.e. children are getting better care in East Sussex.
7. WIDER DETERMINANTS

Tackling the risk factors of oral diseases and promoting oral health, with appropriate targeting for vulnerable groups will reduce population oral health inequalities. Provision of high quality dental services is only one aspect of this as treatment alone will not eliminate oral disease or health inequalities, no matter how accessible or effective it may be. Dental services also have a role in providing advice about oral hygiene and diet, as well as preventative and protective treatments such as fluoride varnish and fissure sealants.

The Common Risk Factor Approach emphasises the need to tackle the common risk factors and conditions that are shared by common chronic non-communicable diseases. For example, all policies to reduce smoking and alcohol use will improve population oral health, as will accident reduction policies, such as compulsory seatbelt use, safe play areas and use of mouth guards for contact sports which reduce risk of injuries to teeth.

The common population health risks that include a major dental risk are poor diet, smoking, stress, high alcohol consumption, poor hygiene and injuries (Figure 21). These risk factors inter-relate with wider risk factors such as deprivation, or belonging to a particularly vulnerable population. The Common Risk Factor Approach is one of the most important concepts for oral disease prevention. Targeting the reduction of these risk factors at a population level as well as to key groups would simultaneously reduce the incidence of obesity, health disease, stroke, cancers, diabetes and mental illness, in addition to oral diseases. If the Common Risk Factor Approach is broadly adopted, all health professionals will communicate consistent health messages to the public, and strategic approaches to improving oral health will therefore be linked to other, more general, health promotion initiatives.

Figure 21: Common Risk Factors and Their Importance for Oral Health

Source: FDI, 2016
**Deprivation**

**Nationally:** Evidence of oral health inequalities across the social gradient in the UK are well established in the UK, with individuals of all ages at the lower end of the social spectrum suffering from worse oral health than those at the higher end.\(^{183,184,185,186,187}\) For example, a recent study looking at over 20,000 adults participating in the last three adult dental health surveys in the UK found that those in the highest social class had 10-11% more teeth and 25-28% higher probability of having functional dentition than the lowest social class.\(^{188}\) These inequalities have been found to be larger amongst young adults.\(^{189}\) Analysis by Public Health England looked at the correlation between rate of decay among 5 year old children and deprivation score and found the more deprived the area, the higher the rate of decay found in 5 year olds surveyed\(^{190}\) (figure 22).

![Figure 22: Rate of decay among 5 year olds and deprivation score](source: PHE, 2014)

Analysis of the 2013 national child dental health survey\(^{191}\) also illustrates the unequal distribution of the burden of tooth decay, with the prevalence of severe or extensive dental decay 18% at age 5 and 20% at age 15 for the most deprived quintile, compared to 4% of 5 year olds and 8% of 15 year olds in the least deprived quintile. Furthermore, research suggests that such socio-economic differences in oral health are persistent across generations and over time. Self-reported poor oral health in mothers is not only reflected in incremental tooth loss in children, but oral health inequalities have also been shown to widen with age. This suggests that health-related behaviours, whether smoking, tooth brushing, or diet, take place within the social context (family, peers, class, neighbourhood, workplace, ethnicity, and so on), and meaningful reduction of health inequality thus needs to be a multi-faceted and sustained effort directed at many of these aspects.\(^{192}\)

**East Sussex:** Hastings is the most deprived district/borough in East Sussex and Wealden is the least deprived. The majority of the 10% most deprived wards are in Hastings, with Central St Leonards ranking as the most deprived ward in East Sussex. From an NHS perspective, H&R CCG is the most deprived CCG in East Sussex, and HWLH CCG is the least. 29% of households are on low income (less than 60% of national median income), 8% are in fuel poverty, and of all districts and boroughs,
Hastings has the highest percentage of children in low income households (28%). Nearly a quarter (24%) of pupils are registered for free school meals.

Dental caries in East Sussex are closely linked with Deprivation, with around 35% of children in the most deprived quintile experiencing dental caries compared to around 12% of children in the least deprived quintile (figure 23).

**Figure 23: Prevalence of child caries by Index of Multiple Deprivation 2010 quintiles for East Sussex local authority (including 95% confidence limits shown as black bars).**

Those people living in deprived areas tend to have poorer health outcomes and therefore have higher needs. In order to reduce oral health inequalities, there should be a greater concentration of health promotion activities in more deprived areas.

Dental services have developed in areas that are densely populated. Existing services across East Sussex are concentrated towards the coast, which is the most densely populated area. However, existing dental services appear to be poorly distributed in more rural areas with high deprivation, while there are greater concentrations of practices within the more urban areas. In East Sussex, 19 out of 329 LSOAs are among the 10% most deprived neighbourhoods in England: 16 of these are in Hastings, however the county also has 22 out of 329 LSOAs in the least deprived 10% in England: 14 of these are in Wealden (Figure 24). In comparison to the 2008 local oral health needs assessment, figure 22 identifies a similar number of dental practices in rural areas of East Sussex, although there appears to be a slight growth in number in urban areas.
Diet

Nationally: One approach to addressing many of the wide determinants of oral health is the adoption of the common risk factor approach to disease prevention. Diet is one such common factor with a role in dental caries, obesity, heart disease, stroke, cancers and diabetes. It has been suggested that there could be a link, identified among children and adolescents, between dental erosion and the increased consumption of acidic soft drinks, including carbonated drinks, fruit juices, diet drinks, sports drinks and alcopops. Diet has a significant impact on dental caries, particularly relating to sugar intake which causes demineralisation of tooth surfaces and a subsequent drop in pH in the mouth as bacteria converts sugar to acid. Saliva produces a “buffering” effect to demineralisation and by spacing sugar intake there is more chance of remineralisation occurring. While it is recognised that excessive consumption of acidic fresh fruits, such as citrus fruit, may cause dental erosion if eaten in large quantities, the individual and population health benefits of fruit consumption far outweigh any oral health detriments from these foods.

The estimated annual cost of food related ill health to the NHS is £6 billion. In terms of oral health, national guidance focuses largely on snacks, because it is the frequency of sugar and acid intake between meals that has the greatest detrimental effect on oral health. In 2016 Public Health England launched the Eatwell Guide which shows the proportions of different types of foods and drinks that should be consumed to have a healthy, balanced diet (Figure 25). This differs slightly from the previously recommended “Eatwell plate” to reflect current government advice on a healthy, balanced diet, including the removal of some foods high in fat, salt or sugar.
In the UK consumption of fruit and vegetables among adults changed very little between 2001 and 2013. In 2013 only 30% of adults aged 19-64 and 41% of those aged over 65 years meet the 5-a-day recommendations for fruit and vegetables, with women more likely than men to meet this recommendation. On average men consume 3.5 portions a day, and women 3.7. People in London and the South East consume more portions of fruit and vegetables per day than any other region, and there is a clear trend across the country of fruit and vegetable consumption falling as income level declines. Between 2001 and 2013 the average portions consumed per day for children aged 5-15 years was significantly lower than the recommended intake, averaging 3 portions for boys and 2.7 for girls. In 2013 just 16% of boys and 17% of girls reached the recommended intake. Similarly to adults, children are less likely to eat the recommended portions if they are in lower income households, although the Healthy Start voucher scheme attempts to address this for women on low incomes who are pregnant or have a child under 5.

In July 2015 the UK government adopted newly published advice which recommends that the average intake of free sugars (including those added to food or naturally present in honey, syrups and unsweetened fruit juices, but excluding lactose in milk products) should not exceed 5% of total dietary energy for both adults and for age groups from two years upwards. This is a 50% reduction in recommended intake. Figures 26 and 27 outline the main contributors to sugar intake in the UK for both children and adults, and illustrate soft drinks (excluding fruit juice) are the largest single source of sugar for children aged 11 to 18 years, providing, on average, 29% of daily sugar intake for this age group as a whole. Table sugar and confectionery (21%) and fruit juice (10%) are also large contributors to the sugar intake of 11 to 18 year olds. For younger children (aged 4 to 10 years) soft drinks; biscuits, buns, cakes, pastries and puddings; breakfast cereals; confectionery; and fruit juice are the major sources. In adults (aged 19 to 64 years) table sugar; biscuits, buns, cakes, pastries and puddings; and soft drinks are the main sources (Figure 27).
The latest data from the National Diet and Nutrition Survey (2008/09 to 2011/12)\textsuperscript{206} shows that average sugar intakes exceed current recommendations in all age groups. For adults, sugar intakes were generally higher in groups with the lowest incomes. For children, boys aged 11–18 years consume significantly more sugar as a percentage of their food energy intake than boys or girls aged 4–10 years. There are no significant differences between boys and girls within either age group. Two groups with specific oral health and nutrition needs are those aged under 5 years and nutritionally vulnerable older people, both of which are priority groups for prevention efforts.\textsuperscript{207}

**Under 5’s**

The types of foods and drinks consumed in pregnancy or given to infants is important for their health and wellbeing and establishing longer-term eating habits and the foundations for oral health. In this sense health professional’s contribution of clear, consistent and achievable messages for oral health and nutrition is essential.\textsuperscript{208} Some of the main challenges in nutrition-related poor oral health include: low rates of breastfeeding in the very early days; weaning before six months with unsuitable foods; high sugar intake; poor fruit and vegetable intake; high rates of overweight and obese children; low
rates of dental registration for under 2’s; poor oral health practices; high preventable teeth extractions (250,000 in 2005) and persisting oral and nutritional health inequalities.  

**Nutritionally vulnerable older people**

The majority of older people are nutritionally well, yet some are nutritionally vulnerable, for example if they have unintentional weight loss, physical difficulty eating or drinking, illness affecting food intake, cognitive or communication difficulties, or need modified food textures. An increasing number of older adults are also retaining their own natural teeth, which, if maintained in a healthy state will aid food chewing which aids in the consumption of a healthy, varied diet in older age. Some of the key oral health issues relating to nutrition for older people include: dry mouth, compounding of tooth decay by dry mouth or dentures, painful mouth due to changes in saliva quantity and quality, limited use of sugar-free medicines which could cause decay, use of diabetic products (shown to have no benefits) instead of appropriate nutritional advice, dehydration and under-nutrition.  

**East Sussex**: Three in five (61%) adults aged over 16 years in East Sussex eat 5 portions of fruit and vegetables a day, an average of 2.8 portions of fruit and 2.5 portions of vegetables, significantly higher than nationally (56%) (Figure 28). Of all Boroughs and Districts in East Sussex, Rother is the only one with a significantly larger percentage of the population eating the recommended 5 portions of fruit and vegetables a day than the national average. Between 2003 and 2011, the percentage of the population eating at least 5 portions of fruit and vegetables a day increased from 41% to 46%, indicating that the percentage of the local population eating 5 portions of fruit and vegetables has risen significantly faster in over the last 4 years than in the preceding 8 years.  

**Figure 28: Estimated percentage of adults aged 16+ who eat 5 portions of fruit or vegetables a day**

![Figure 28: Estimated percentage of adults aged 16+ who eat 5 portions of fruit or vegetables a day](image)

*Source: Public Health Outcomes Framework, 2015*

<table>
<thead>
<tr>
<th>Boroughs</th>
<th>% of Population Eating 5 Portions of Fruit and Vegetables a Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>56</td>
</tr>
<tr>
<td>South East</td>
<td>60</td>
</tr>
<tr>
<td>East Sussex</td>
<td>61</td>
</tr>
<tr>
<td>Eastbourne</td>
<td>61</td>
</tr>
<tr>
<td>Hastings</td>
<td>60</td>
</tr>
<tr>
<td>Lewes</td>
<td>60</td>
</tr>
<tr>
<td>Rother</td>
<td>65</td>
</tr>
<tr>
<td>Wealden</td>
<td>65</td>
</tr>
</tbody>
</table>

**Obesity**

Dental caries and obesity are two of the most prevalent health conditions affecting children. In 2011-12 in England, 9.4% of five-year-old children were obese and 24.7% had dental caries experience. Consumption of free sugars is a risk factor both for dental caries and obesity, with consumption of sugar sweetened beverages leading to greater weight gain and increases in body mass.

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2 All monosaccharides and disaccharides added to foods by the manufacturer, cook or consumer, plus sugars naturally present in honey, syrups and unsweetened fruit juices.
There is also a strong relationship between deprivation and both obesity and dental caries in children, and given these common risk factors for dental caries and obesity, it has been hypothesised that these two outcomes may be more likely to co-exist within the same individuals or populations. However, there are also many non-shared risk factors for both conditions. A recent review by Public Health England found low-quality national evidence that dental caries and obesity may be more likely to occur in the same populations, yet concludes that interventions to reduce the common risk factors will likely impact on both caries and obesity at population level. Recommended interventions include healthier catering policies, whole-school and community engagement approaches, creating healthier food environments, and supporting campaigns such as the school food plan and the Change4life sugar swaps campaign.

In 2014, 58% of women and 65% of men were overweight or obese, with prevalence increasing from 15% in 1993 to 26% in 2014. Average intakes of saturated fat, sugar, and salt are above recommendations while intakes of fruit and vegetables, fibre and some vitamins and minerals are below recommendations.

**East Sussex:** In East Sussex between 2011/12 and 2013/14, 21% of reception year children and 30% of year 6 children measured by the national child measurement programme were considered overweight or obese. For both reception and year 6 children, those living in Hastings were most likely to be overweight (including obese) (25% and 34% respectively). In 2012/13 an estimated 65% of adults in East Sussex were overweight or obese (BMI of 25 or over), with the highest levels of overweight adults estimated to be in Lewes (69%). GP reported prevalence of obesity in 2014/15 (BMI of 30 or over) indicates highest rates of obesity in Hastings (99 per 1,000 population compared to 79 per 1,000 for East Sussex).

There are a number of programmes within East Sussex which have the potential to impact on oral health of children and young people. For example the Health Active Little Ones (HALO) – East Sussex programme for targeted early years settings actively engages parents/carers with early years nutrition, including messages around the high impact of sugar on oral health. For school age children oral health/hygiene has been highlighted as a key issue in relation to health eating as part of a pilot to develop school health profiles and health improvement action plans with targeted schools across East Sussex.

The East Sussex Healthy Weight Partnership and supporting action plan brings together stakeholders from a range of organisations from different sectors to collaboratively work together to reduce the burden of excess weight. The overall action plan takes a whole system approach and each priority contributes to supporting and promoting healthy eating e.g. sugar reduction. The interventions and projects in place to support the priorities have the opportunity to impact on the oral health, as well as tackling excess weight, in both adults and children and young people locally. The priorities include; the creation of a physical and social environment which consists of promoting healthier food choices, providing services to improve diet, communicating and engaging with communities and individuals, and developing the workforce so they can support the wider community.

There are a number of additional free oral health promotional resources available in East Sussex, particularly aimed at children and young people, including tools, models and displays, as well as dietary advice – some available from libraries and some to print: [http://www.eastsussex.gov.uk/socialcare/healthadvice/healthpromotion/oralhealth.htm](http://www.eastsussex.gov.uk/socialcare/healthadvice/healthpromotion/oralhealth.htm)
East Sussex County Council also provide a number of health promotion resources on healthy eating and obesity, including some aimed at the effect of sugar on tooth decay, as well as links to nationally available resources, such as the National Change4Life sugar smart campaign launched in January 2016.
Smoking

**Nationally:** Of the 70,000 people killed each year because of tobacco use, 1,900 die from oral cancer. Smokers are 7-10 times more likely than non-smokers to suffer from oral cancer. Tobacco use, both smoking and chewing tobacco, seriously affects general and oral health, causing at least 50 different diseases including various types of cancers, heart disease, strokes and chronic lung disease. The most significant effects of tobacco use on the oral health are oral cancers and pre-cancers, increased severity and extent of periodontal diseases, tooth loss and poor wound-healing post operatively. Less serious risks include teeth staining, loss of taste or smell, lesions on the roof of the mouth, coated tongue, and halitosis (bad breath). Whilst essentially cosmetic issues, they can have a huge impact on a person’s appearance and, consequently, self-esteem.

While the impact of tobacco use on health is alarming, the benefits of stopping are substantial, particularly for people under 35 years of age, because many of the adverse effects of tobacco use on oral tissue are reversible. With 61% of dentate adults in England reporting regular dental check-ups, Public Health England recommends that dentists are in a unique position to provide opportunistic smoking cessation advice to a large number of “healthy” people who may use tobacco.

**East Sussex:** In East Sussex the GP reported prevalence of smoking for persons aged 15 years and over is 19%, with the highest prevalence in West Hastings (31%). 13% of mothers smoke at the time of delivery and 13% of mothers and 25% fathers are current smokers at the 6-8 week check. There are 1,040 smoking-related deaths per year in East Sussex.

The East Sussex Tobacco Plan has three priority areas: 1) Helping people to stop smoking 2) Preventing people from starting 3) Protecting communities and families from second-hand smoke. Public Health are working with other members of the East Sussex Tobacco Partnership including Trading Standards and Licensing from Hastings Borough Council and the local NHS stop smoking service, Quit 51 to implement a range of programmes under each priority area.

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**Footnotes:**

**Substance Misuse**

**Nationally:** Illegal drugs impact on a range of oral and dental problems such as dry mouth, increased sugar cravings, high rates of decay and periodontal disease and nutritional deficiency. Opiates (narcotics containing opium or opium derivatives - including heroin and its prescription substitute, methadone) are associated with a high rate of caries and periodontal disease, partly due to eating habits of substance misusers. Illegal drug use is associated with low disposable income and a chaotic lifestyle, so can easily lead to poor nutrition and cravings for sweet food. A chaotic lifestyle can also lead to neglect of oral hygiene.

**East Sussex:** In East Sussex, between 2011/12 and 2312/13, the rate of 0-18 year olds in drug or alcohol treatment was 53 per 10,000, compared to 109 per 10,000 for those aged over 19 years. For children and adults, Hastings has the highest rate of those in drug or alcohol treatment (87 per 10,000 0-18 year olds and 245 per 10,000 adults). The rate of adults in drug treatment alone is 56 per 10,000 in East Sussex, with Hastings having 2.5 times the county rate (140 per 10,000). The rates of adults in drug, or drug and alcohol treatment are highest in the most deprived areas (West Hastings and St Leonards) and lower in the least deprived area (High Weald). There is little information available on oral health in relation to substance misuse in East Sussex.

**Alcohol**

Alcohol is a complex issue; it is the most widely used drug in the world and has a significant and highly valued economic and social role. National evidence shows that any increase in alcohol consumption, particularly over the recommended guideline amounts, increases risk to oral health, including increased risk of tooth surface erosion and oral health impacts of facial injuries related to alcohol consumption. (figure 29).

Guidance developed in Scotland recommends that for these reasons alcohol brief interventions should be included in standard dental practice as secondary outcomes of such interventions include reduced dental trauma, reduced risk of oral cancer and stabilisation of dental erosion. Barriers to care for both alcohol and substance misusers include: anxiety, lack of awareness of available services, fear of healthcare and social services, low prioritisation of dental health, substances masking dental pain, chaotic lifestyle, inadequate staff training and service flexibility, stigma, lack of understanding of the increased oral health risks of this vulnerable population.

**East Sussex:** Locally in East Sussex, alcohol consumption and harm is spread across the population, amongst different age and socio-economic groups. Although there is little variation in adult drinking behaviours across the county, there are substantial differences in the health consequences between affluent and deprived communities (based on 2014 national indicators using the definitions in Table 5). Much of the alcohol related harm, including health harm, disproportionately affects Hastings and Eastbourne.
Table 5: Definitions of drinking risk based on 2014 guidelines

<table>
<thead>
<tr>
<th>2014 guidance</th>
<th>Lower risk</th>
<th>Increasing risk</th>
<th>Higher risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>No more than 2-3 units per day on a regular basis (or no more than 14 units per week)</td>
<td>More than 2-3 units per day on a regular basis (or more than 14-35 units per week)</td>
<td>More than 6 units per day on a regular basis (or 35 units per week)</td>
</tr>
<tr>
<td>Men</td>
<td>No more than 3-4 units per day on a regular basis (or no more than 21 units per week)</td>
<td>More than 3-4 units per day on a regular basis (or more than 21-50 units per week)</td>
<td>More than 8 units per day on a regular basis (or 50 units per week)</td>
</tr>
</tbody>
</table>

Alcohol related admissions in East Sussex largely follow the same trend as both regionally and nationally. Within the county there is variation with Hastings and Eastbourne having significantly higher rates per 100,000 than Wealden, Rother and Lewes. There is no local data about the oral health of people who drink alcohol in excess of the recommended levels.

The 2015 East Sussex Health Harms report\(^\text{248}\) makes a number of suggestions for local practice to address alcohol related harm including:

- Focus resources on areas and communities where harm is highest if we are to reduce overall alcohol harm in the county.
- Address the social determinants of health and health inequalities if we are to successfully combat alcohol related harm. For example we need to work with others on interventions to increase social support, address loneliness, promote resilience and mental wellbeing, address financial problems and housing issues and promote employment opportunities.
- Work with communities to co-produce solutions to addressing alcohol issues in line with evidence and good practice guidance. Initiatives are less likely to succeed if the community are passive recipients.

East Sussex has an alcohol strategy\(^\text{249}\) informed by a local needs assessment\(^\text{250}\) and the 2015 Alcohol Health Harm Report\(^\text{251}\). One of the objectives, funded by Public Health England, is the community centred alcohol programme in Hastings which is based on asset based community development methodology. Shared Future has been appointed in March 2016 to work with an identified community and co-produce solutions to address alcohol harm in their community.

In January 2016 new guidelines for alcohol consumption were introduced which stated that there is no safe daily level of drinking, and recommending that both men and women should not drink more than 14 units per week spread over three or more days (previous guidelines were 21 units a week for men and 14 for women). Additionally, new guidance states that no level of alcohol is safe to drink in pregnancy.\(^\text{252}\) There have been no new indicators developed as yet in line with the new guidance.
Fluoride is a naturally occurring mineral found in water in varying amounts. It is also present in some food. Fluorosis is the underdevelopment of tooth enamel or dentine and can be caused by ingestion of excessive amounts of fluoride during the development of the crowns of teeth. In parts of England, particularly in the West Midlands, the level of fluoride in the public water supply has been adjusted to one mg per litre (one part per million), with around six million people living in areas with fluoridation schemes. A 2014 monitoring report of these schemes found: a positive association with dental health of children; a greater reduction of tooth decay in children living in most deprived local authorities; 45% less children aged 0-4 admitted to hospital for dental caries than in non-fluoridated areas; and some evidence of a reduction in kidney stones and bladder cancer.

Brushing with fluoride toothpaste is considered to have been the single biggest contributor to the reduction in dental caries in children over the past 30-40 years. Programmes to increase tooth brushing have supplemented the key message to brush twice a day at home with organised tooth brushing as part of the daily routine in nursery and targeted school settings. Local authorities have: the power to make proposals regarding water fluoridation schemes, a duty to conduct public consultations relating to these and powers to make decisions about them. In addition to this, fluoride varnish can be applied to both baby teeth and adult teeth and involves painting a varnish that contains high levels of fluoride on to the surface of the tooth every six months to prevent decay. It works by strengthening tooth enamel, making it more resistant to decay, and should be offered to children from the age of three at least twice a year.

East Sussex: In 2014/15 21.5% of child courses of treatment (COTs) contained treatment for Fluoride varnish: 23.5% in EHS CCG; 24% in H&R CCG and 17.1% in HWLH CCG. This is markedly lower than the national average of 32.1%. In the same period 3.1% adult COTs in East Sussex contained fluoride varnish treatment compared to 2.8% nationally. Locally, fluoride treatment for adults is higher than nationally for band 1, 2 and 3 treatments, and is most prevalent within band 3 treatments, delivered in 4.6% of courses of treatment in East Sussex compared to 2.5% nationally. Conversely to adult fluoride varnish, child treatment is markedly lower than nationally for band 1 and 2 treatments (21.5% and 26.4% respectively compared to 32.1% and 33% nationally), but is delivered in more COTs in band 3 (18.2%) locally than nationally (14.8%). There are currently no water fluoridation schemes in operation or under consideration in East Sussex.
Wider Determinants

Nationally

• Oral health inequalities across the social gradient are well established in the UK.
• National child and adult dental health surveys show the least deprived quintile have more teeth and markedly less decay than the most deprived quintile.
• Socio-economic differences in oral health are persistent across generations and over time.
• Diet has a significant impact on dental caries, particularly relating to sugar intake.
• It is the frequency of sugar and acid intake between meals that has the greatest detrimental effect on oral health.
• Smokers are 7-10 times more likely than non-smokers to suffer from oral cancer.
• PHE recommends dentists are in a unique position to provide opportunistic smoking cessation advice to a large number of “healthy” people who may use tobacco.
• Any increase in alcohol consumption, particularly over the recommended guideline amounts, increases risk to oral health.
• Brushing with fluoride toothpaste is considered to have been the single biggest contributor to the reduction in dental caries in children over the past 30-40 years.

East Sussex

• There is a paucity of local evidence on oral health relating to smoking, alcohol and substance misuse.
• In East Sussex around 35% of children in the most deprived quintile experience dental caries compared to about 12% of children in the least deprived quintile.
• In East Sussex the GP reported prevalence of smoking is 19%, and is highest in West Hastings.
• East Sussex has a higher percentage of adult fluoride varnish treatments than nationally, but a markedly lower percentage of child treatments.
8. SERVICE PROVISION IN EAST SUSSEX

Need for Dental Services

There is limited data available for patients treated in private dental practices so this section concentrates primarily on the population treated by NHS dentists in East Sussex. NHS dental services are commissioned by NHS England.

For an agreed contract value, dentists are now expected to deliver an agreed number of Units of Dental Activity (UDAs), which relate to courses of treatment weighted by their complexity. UDAs are the means of measuring performance and demand from the population against targeted activity that has been commissioned. There are 3 bands of NHS dental treatment that relate to the complexity of dental care. The number of UDAs a performer can claim ranges from 1 to 12 UDAs:

- **Band 1** equates to 1 UDA and covers examination, diagnosis and preventative dental treatment such as Fluoride varnish
- **Band 2** equates to 3 UDAs and include Band 1 plus further treatments such as fillings, root canal work and extractions
- **Band 3** equates to 12 UDAs and includes Band 1 and 2 plus further dental treatment requiring laboratory work
- **Unscheduled urgent care** equates to 1.2 UDAs under a Band 1 course of treatment
- **Issue of a prescription** equates to 0.75 UDA

*Figure 30: Courses of Treatment performed by treatment band and Local Authority, 2014/15 (Excluding orthodontic treatment)*

In 2014/15 there were 383,278 courses of treatment (CoT) in East Sussex. Figure 30 indicates that East Sussex has a higher percentage of COTs in Band 3 and for urgent treatment, and a lower proportion of COTs in Band 1 when compared against national averages. This may reflect poorer overall dental health of those accessing NHS services, indicated by the need for more complex treatment and/or complicated needs under NHS arrangements. Of the 383,278 CoTs in East Sussex in 2014/15, 0.28% (1,121) included domiciliary visits and 0.18% (707) included sedation. East Sussex has proportionately...
greater domiciliary visits than nationally (0.18%), and fewer sedations than nationally (0.34%). This is an indirect indication of need in East Sussex as very few practices nationally are licensed to provide sedation. The percentage of domiciliary visits is markedly higher in NHS H&R (0.47%) than NHS HWLH (0.08) and NHS EHS (0.25), while the percentage of sedations is markedly higher in NHS HWLH (0.45%) compared to 0% in NHS EHS and 0.12% in NHS H&R.260

In 2014/15, there were 167,300 UDAs performed per 100,000 population, higher than the national rate of 161,900, although there is significant variation with the area. While the rate of UDAs for Band 1 and 2 treatments in East Sussex were broadly in line with national figures, there is a markedly higher rate of UDAs performed for Band 3 treatments (Table 6). This is particularly the case within Hastings and Rother CCG which has markedly higher rates of UDAs for Band 2 treatments and 3 treatments than both nationally and in comparison to EHS CCG and HWLH CCG.261 This corresponds with evidence that areas with greater deprivation have poorer oral health and greater oral health needs.

Table 6: Units of Dental Activity performed per 100,000 population, by treatment band and CCG, 2014/15 (Excluding orthodontic treatment)

<table>
<thead>
<tr>
<th></th>
<th>Total UDAs</th>
<th>Band 1</th>
<th>Band 2</th>
<th>Band 3</th>
<th>Urgent</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLAND</td>
<td>161,923</td>
<td>40,895</td>
<td>63,752</td>
<td>48,520</td>
<td>8,422</td>
<td>334</td>
</tr>
<tr>
<td>East Sussex</td>
<td>167,333</td>
<td>37,819</td>
<td>63,174</td>
<td>56,654</td>
<td>9,375</td>
<td>311</td>
</tr>
<tr>
<td>NHS EH&amp;S</td>
<td>150,909</td>
<td>36,889</td>
<td>56,023</td>
<td>49,110</td>
<td>8,659</td>
<td>229</td>
</tr>
<tr>
<td>NHS H&amp;R</td>
<td>186,488</td>
<td>38,485</td>
<td>71,744</td>
<td>66,373</td>
<td>9,424</td>
<td>462</td>
</tr>
<tr>
<td>NHS HWLH</td>
<td>164,560</td>
<td>38,113</td>
<td>61,718</td>
<td>54,390</td>
<td>10,100</td>
<td>239</td>
</tr>
</tbody>
</table>

Source: HSCIC, August 2015

The most recent data262 identifies that between 2013 and 2015 552,128 patients in East Sussex were treated by an NHS dentist: 251,590 in 2013/14 (47% of the population) and 300,538 in 2014/15 (56% of the population). This is the total number of patients treated in each year, so some patients may have attended in both years. However, without data on those who are not registered or registered with a private dentist, it is not possible to further contextualise these figures in relation to the East Sussex population as a whole. Table 7 identifies the wards with the highest and lowest percentage of population receiving NHS treatment in 2014/15, and shows that for all adults, treatment is highest in St Helens which is in an area of higher deprivation.

Table 7: Percentage of population treated by range and age band, 2014/15

<table>
<thead>
<tr>
<th></th>
<th>East Sussex</th>
<th>0-19 year olds</th>
<th>20-64 year olds</th>
<th>Aged 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>% population treated by an NHS dentist</td>
<td>East Sussex average</td>
<td>65%</td>
<td>74%</td>
<td>52%</td>
</tr>
<tr>
<td></td>
<td>Ward with highest % treated</td>
<td>St Helens 76%</td>
<td>Horam 97%</td>
<td>St Helens 70%</td>
</tr>
<tr>
<td></td>
<td>Ward with lowest % treated</td>
<td>Frant/Withyham 22%</td>
<td>Frant/Withyham 32%</td>
<td>Frant/Withyham 19%</td>
</tr>
</tbody>
</table>

Source: NHSBSA, Dec 2015

Figure 31 shows higher concentrations of the population being treated by NHS dental services are in Hastings as well as in the wards of Battle Town, Horam, Healthfield, Uckfield North and Uckfield Ridgewood.
For those patients treated by an NHS dentist in 2014/15, there were a total of 879,200 UDAs performed, an average of 2.9 UDAs per patient. Figure 32 shows the UDA rate per patient treated across East Sussex. The wards with the highest UDA rate per patient, and therefore it is assumed the highest complexity of treatment, are generally concentrated along the coastal regions around Bexhill, Hastings, Eastbourne, Peacehaven and Newhaven, as well as Hailsham East and Crowborough. Areas with the highest UDAs are generally the areas with the highest numbers of practices, which also correspond with areas of highest deprivation.

Table 8 identifies the range of UDAs (Highest and lowest) by age band across East Sussex and shows that UDAs are higher for those aged over 65 years, and for all ages the wards with the highest UDAs are more deprived areas, with the exception of those aged 65 and over where UDAs are higher in less...
deprived wards. This may in part be due to the increasing need for dental services associated with ageing.

Table 8: average UDA per patient by age band, 2014/15

<table>
<thead>
<tr>
<th>Average UDA</th>
<th>East Sussex</th>
<th>0-19 year olds</th>
<th>20-64 year olds</th>
<th>Aged 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Sussex average</td>
<td>2.9</td>
<td>1.8</td>
<td>3.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Ward with highest UDA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sidley 3.7</td>
<td>Central St Leonards 2.3</td>
<td>Sidley 4.4</td>
<td>Barcombe and Hamsey 4.7</td>
</tr>
<tr>
<td>Ward with lowest UDA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ditchling and Westmeston 2.3</td>
<td>Alfriston 1.5</td>
<td>Ditchling and Westmeston 2.3</td>
<td>Plumpton, Streat, East Chiltington and St John 2.7</td>
</tr>
</tbody>
</table>

Source: NHSBSA, Dec 2015

Using number of UDA’s per patient as a proxy for complexity of treatment, by identifying the top 10% of wards with the highest UDAs (Table 9) we potentially have an indication of where health promotion and prevention activity might most effectively be focussed.

Table 9: Top 10% of wards with highest UDA per patient

<table>
<thead>
<tr>
<th></th>
<th>East Sussex</th>
<th>0-19 year olds</th>
<th>20-64 year olds</th>
<th>Aged 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sidley 3.7</td>
<td>Central St Leonards 2.3</td>
<td>Sidley 4.4</td>
<td>Barcombe and Hamsey 4.7</td>
</tr>
<tr>
<td>2</td>
<td>Central St Leonards 3.6</td>
<td>Sidley 2.3</td>
<td>Hailsham East 4.1</td>
<td>Crowborough East 4.5</td>
</tr>
<tr>
<td>3</td>
<td>Castle 3.5</td>
<td>Braybrooke 2.2</td>
<td>Central St Leonards 4.0</td>
<td>Lewes Castle 4.5</td>
</tr>
<tr>
<td>4</td>
<td>Hailsham East 3.5</td>
<td>Hailsham East 2.2</td>
<td>Castle 4.0</td>
<td>Crowborough St. Johns 4.4</td>
</tr>
<tr>
<td>5</td>
<td>Central 3.5</td>
<td>Maze Hill 2.1</td>
<td>Newhaven Valley 4.0</td>
<td>Crowborough West 4.3</td>
</tr>
<tr>
<td>6</td>
<td>Sackville 3.4</td>
<td>West St Leonards 2.1</td>
<td>Central 3.9</td>
<td>Newhaven Valley 4.2</td>
</tr>
<tr>
<td>7</td>
<td>Gensing 3.4</td>
<td>Baird 2.1</td>
<td>Newhaven Denton/Meeching 3.9</td>
<td>Gensing 4.2</td>
</tr>
<tr>
<td>8</td>
<td>Newhaven Valley 3.4</td>
<td>Hollington 2.1</td>
<td>Gensing 3.8</td>
<td>Forest Row 4.1</td>
</tr>
<tr>
<td>9</td>
<td>Old Town (Bexhill) 3.3</td>
<td>Castle 2.1</td>
<td>Baird 3.7</td>
<td>St Stephens 4.0</td>
</tr>
<tr>
<td>10</td>
<td>Newhaven Denton/Meeching 3.3</td>
<td>St Michaels 2.1</td>
<td>Peacehaven East 3.7</td>
<td>Central 4.0</td>
</tr>
</tbody>
</table>

Source: NHSBSA, Dec 2015

Across East Sussex there is a clear correlation between wards with the highest UDA per patient and deprivation, with 7 of the top 10 wards with the highest UDAs in the most deprived quintile in East Sussex. However this changes when we look at this in relation to different age groups. Figures 27, 28 and 29 show the average UDA per patient by ward for those under 19 years (Figure 33), aged 20-64 years (Figure 34) and aged 65 years and over (Figure 35).
There is a clear relationship between deprivation and the wards with the highest UDAs per 0-19 year old treated (Figure 33), with all ten wards with the highest UDA rate in the most deprived quintile in East Sussex. However, the distinction is less clear when looking at more affluent wards, with areas such as Forest Row and Frant/Withyham which are in the least deprived quintile having relatively high UDA rates per patient. This may be an indication of higher need, but may also be due to clusters of dental practices in areas such as Crowborough. Similarly for 20-64 year olds, 8 out of the ten wards are in the most deprived quintile in East Sussex, with the remaining 2 in the second most deprived quintile, with higher UDAs also indicated in the more affluent wards of Frant/Withyham and Crowborough East (Figure 34). However, there is less obvious correlation between higher UDA and areas with a higher density of this age group.
Unlike the younger age groups, only three of the 10 wards with the highest average UDA for those age 65 years and over (Gensing, Central and Newhaven Valley) are in the most deprived quintile in East Sussex, while 4 are in the least deprived quintile (Crowborough St Johns, Crowborough West, Forest Row and Crowborough East) (Figure 35). The literature identifies that treatment can be more complicated for older people, with those in less deprived areas retaining more teeth than those in more deprived areas. There is no obvious correlation between areas with higher UDAs and areas with higher concentration of people aged 65 and over.

**Figure 35: Average UDA per patient treated by ward, 65+ year olds**

From the evidence available we would expect those living in greater deprivation to have greater levels of decay. The maps above indicate that there is increased dental activity in areas of deprivation in East Sussex, which suggests that people with higher risk of decay are accessing dental treatment. This indicates that, to some extent needs are being met. However, this is only describing part of the picture. There are other known risks and factors affecting the needs of the population and which influence whether current dental activity is enough to meet the oral health needs of the population.

### Access to Dental Services

In response to the Steele Review, the NHS White Paper Equity and Excellence: Liberating the NHS proposed the introduction of a new dentistry contract, with a renewed focus on improving quality, achieving good dental health and increasing access to NHS dentistry. To this end, the Government is trialling a new series of pilots in various locations around the country. Three different contract models are being tested which will inform the development of a new national NHS dental contract. The proposed new dental contract will be structured to reward dentists for the continuity and quality of care provided to patients, as opposed to Units of Dental Activity (UDAs) delivered in the current dental contract.

In urban areas dental services are intended to be accessible within a 5 mile radius. In rural areas access to services are measured by a 15 mile radius. Existing services in East Sussex are accessible within both these geographical access measures. Access is also measured by the number of patients who have had
visited an NHS dentist in the preceding two years.\textsuperscript{266} This time period was chosen as NICE (National Institute of Clinical Excellence) guidelines recommended that adults should visit a dentist at least once every two years and children once every 12 months.

**Patients seen by an NHS dentist in the previous 24 months**

Nationally, between June 2013 and June 2015 28.1 million adults were seen by dentists. There has been a 0.5% increase in adults and a 0.7% decrease in children seen by an NHS dentist since 2006.\textsuperscript{267} As at 30\textsuperscript{th} June 2015, 283,900 people had seen an NHS dentist in East Sussex within the previous 24 months: 217,400 adults and 66,500 children. These figures describe patients allocated to a CCG via the dentist attended, not by the home postcode of the patient, although most patients will live within the CCG area\textsuperscript{268} (Table 10). Assuming that most attendances are for people living within East Sussex, compared to the national average of those attending an NHS dentist, East Sussex has lower percentages of children attending across all three CCGs over the last 24 months. Eastbourne, Hailsham and Seaford have lower percentages of the population seen than nationally, while the percentage of people in Hastings and Rother CCG attending NHS dentists is higher than the national average, particularly for the adult population.\textsuperscript{269} The data is not available at this time to relate this to those who have attended private dentists in these areas.

![Table 10: Patients seen by an NHS dentist in the previous 24 months as at Jun 2015: by CCG and percentage of the total population.](image)

<table>
<thead>
<tr>
<th></th>
<th>Child (0-17)</th>
<th>Adult (18+)</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>England</td>
<td>7,992,000</td>
<td>69.5%</td>
<td>22,032,000</td>
</tr>
<tr>
<td>East Sussex County</td>
<td>66,483</td>
<td>63.4%</td>
<td>217,403</td>
</tr>
<tr>
<td>EHS</td>
<td>21,748</td>
<td>62.6%</td>
<td>69,711</td>
</tr>
<tr>
<td>H&amp;R</td>
<td>22,143</td>
<td>62.7%</td>
<td>80,128</td>
</tr>
<tr>
<td>HWLH</td>
<td>22,592</td>
<td>64.8%</td>
<td>67,564</td>
</tr>
</tbody>
</table>

*Source: HSCIC, Aug 2015.*

Between 2011-12 and 2013-14 the percentage of people who tried to get an NHS appointment in the last 2 years rose 3.6% from 58.8% to 62.4% in East Sussex. However, those who were successfully able to get an appointment fell by 1.9% from 95.8% to 93.9%. This is against national trends where those trying to get an appointment rose 1.1% to 60.9%, and those successfully getting an appointment rose by 0.4 \% to 94.8%.\textsuperscript{270} Further analysis of the 2013 child national child dental health survey found that 80% parents reported no difficulty accessing an NHS dentist for their children, however 18% of those whose children were eligible for free school meals reported difficulty finding an NHS dentist compared to 11% of those whose children were not eligible.\textsuperscript{271}

According to the national GP patient satisfaction survey, within East Sussex NHS dental practices in Hastings have received the most applications for appointments (70.3%), and have provided services for 96.2% of those requesting them (Figure 36). In contrast, 60.9% respondents in Eastbourne had requested an NHS appointment over the last 2 years but only 88.5% were successful, suggesting less effective NHS dental provision in Eastbourne compared to other areas of the county. Wealden had the lowest numbers requesting appointments but there is no information on the reasons for this. However, the dental access questions in the GP Patient Survey need to be considered with some caution. The survey is sent to a sample of patients registered with a GP in East Sussex, but although the majority of East Sussex dentists do see patients who are living in the county and registered with an East Sussex GP this does not necessarily mean that the patient surveyed is receiving dental treatment in East Sussex.
In East Sussex, 37.6% of respondents did not try to get an appointment with an NHS dentist in the last 2 years. Compared to nationally, those who did not try to get an NHS dentist appointment in East Sussex were markedly more likely to give the reason that they prefer to go to a private dentist, or that they stayed with their dentist when changing from NHS to private provision (table 11). In NHS HWLH, men were five times more likely (16%) than women (3%) to give the reason of not needing to visit a dentist, while women were over twice as likely (33%) than men (15%) to state that they stayed with their dentist when it changed from NHS to private.

Table 11: Four most common reasons cited for not accessing NHS dentistry

<table>
<thead>
<tr>
<th></th>
<th>% stated they have not needed to go to the dentist</th>
<th>% prefer to go to a private dentist</th>
<th>% Stayed with dentist when changed from NHS to private</th>
<th>% didn’t think they could get an NHS dental appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>21</td>
<td>21</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>SEC region</td>
<td>14</td>
<td>26</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>NHS EH&amp;S</td>
<td>12</td>
<td>30</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td>NHS H&amp;R</td>
<td>16</td>
<td>25</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>NHS HWLH</td>
<td>9</td>
<td>35</td>
<td>24</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: HSCIC, Aug 2014
Clinical Dental Treatment

Excluding examinations, scale and polish is the most common clinical treatment delivered for adults both nationally and locally, although the East Sussex figure is slightly lower than nationally. The percentage of crowns provided to adults is higher in East Sussex (3.5%) than nationally (2.7%), but encouragingly fluoride varnish, a nationally recommended treatment, is delivered more for adults in East Sussex (3.2%) than nationally (2.6%) (Figure 37). For children, fluoride varnish treatment is the most commonly delivered clinical treatment within a COT, although this is markedly lower locally (22%) than nationally (31%). Delivering Better Oral Health recommends that dental professionals provide 2 applications of fluoride varnish per year for children aged over 3.

Figure 37: Percentage of courses of treatment that contain each clinical treatment by Local Authority

![Bar chart showing the percentage of courses of treatment that contain each clinical treatment by Local Authority for children and adults.](chart)

Hospital admissions

In East Sussex in 2014-15 there were 1,880 finished admission episodes (FAEs) where the primary procedure the person has been admitted for is related to oral ill health. Of these FAEs, 62% (1,168) resulted in surgical removal of tooth, and 29% (549) in simple extraction of the tooth (Table 12). Residents of H&R CCG accounted for 43% of all FAEs for oral health issues, EHS CCG for 32% and HWLH CCG for 26%, with a similar split of residents for surgical tooth removal and simple extractions. One episode of care is the time a patient spends in the continuous care of a consultant, with a patient admission potentially made up of several episodes when responsibility is transferred to another consultant. The quality of coding may vary between hospital provider and over time. The information outlined below looks at hospital admissions for oral ill health, excluding attendances at A&E.

Source: HSCIC, Dec 2015
Table 12: FAEs Primary oral health procedure admitted for, 2014-15

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number of episodes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implantation of tooth</td>
<td>*</td>
</tr>
<tr>
<td>Surgical removal of tooth</td>
<td>1,168</td>
</tr>
<tr>
<td>Simple extraction of tooth</td>
<td>549</td>
</tr>
<tr>
<td>Preprosthetic oral surgery</td>
<td>*</td>
</tr>
<tr>
<td>Surgery on apex of tooth</td>
<td>16</td>
</tr>
<tr>
<td>Restoration of tooth</td>
<td>24</td>
</tr>
<tr>
<td>Orthodontic operations</td>
<td>75</td>
</tr>
<tr>
<td>Other operations on tooth</td>
<td>34</td>
</tr>
<tr>
<td>Insertion of dental prosthesis</td>
<td>*</td>
</tr>
<tr>
<td>Grand Total</td>
<td>1880</td>
</tr>
</tbody>
</table>

* = under 10

Source: South East Coast CSU, 2015

In 2014-15 females accounted for 59% of FAE’s for oral health issues, and had a higher rate of FAEs for oral health issues than males across all three CCGs, ranging from 323 per 100,000 in HWLH CCG to 496 per 100,000 in H&R CCG (Figure 38). The rate of oral health FAE’s for both men and women in H&R CCG exceeded both other CCGs.

Figure 38: Crude rate of oral health FAEs per 100,000 population by CCG by gender, 2014-15

Across all three CCGs the cohort with the greatest number of FAEs relating to oral health are those aged between 20 and 29 years. FAEs for oral health rise from birth to the age of 20-24 before steadily decreasing with age (Figure 39).
Of the 22, 0-4 year old FAE’s, 14 were for dental caries, nine of which resulted in tooth extractions and five in tooth restorations. The most prevalent diagnosis for 5-9 year olds was also dental caries (43%), 95% of which resulted in simple tooth extraction, while for 10-19 year olds the most common diagnoses were dentofacial anomalies (misalignment of the jaw or teeth within the jaw) (34%) followed by embedded and impacted teeth (31%). For those of working age and those aged over 65 years the most prevalent diagnosis for admission was dental caries (34% and 46% respectively), most commonly treated by simple extraction of the tooth (Table 13).

**Table 13: Most common diagnoses and procedures by age band**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number of episodes</th>
<th>Most common diagnoses</th>
<th>Most common procedure for that diagnoses</th>
<th>Most common procedure overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>22</td>
<td>Dental caries (64%)</td>
<td>Simple extraction of tooth (64%)</td>
<td>Simple extraction of tooth (73%)</td>
</tr>
<tr>
<td>5-19</td>
<td>405</td>
<td>Dentofacial Abnormalies (32%)</td>
<td>Surgical removal of tooth (49%)</td>
<td>Surgical removal of tooth (46%)</td>
</tr>
<tr>
<td>20-64</td>
<td>1,316</td>
<td>Dental caries (34%)</td>
<td>Simple extraction of tooth (49%)</td>
<td>Surgical removal of tooth (69%)</td>
</tr>
<tr>
<td>65+</td>
<td>137</td>
<td>Dental caries (46%)</td>
<td>Simple extraction of tooth (60%)</td>
<td>Surgical removal of tooth (50%)</td>
</tr>
</tbody>
</table>

*Source: South East Coast CSU, 2015*
Of all FAEs for oral health issues in 2014-15, the most common primary diagnosis (31%) for an episode was dental caries (576), followed by embedded and impacted teeth (341) and gum disease (303) (Figure 40). Over half of the 576 episodes with a primary diagnosis of dental caries resulted in a simple extraction of the tooth (53.5%), while two fifths resulted in surgical removal of the tooth (41.8%). For episodes with a primary diagnosis other than dental caries, the most common procedure was surgical removal of the tooth (71.1%).

Just over a third of all episodes were treated in Eastbourne District General Hospital (656), the majority of which were for residents of EHS CCG (330) and H&R CCG (291). However, residents of H&R CCG were most likely to be admitted to Uckfield Hospital (314) which accounted for 30.9% of all FAEs in 2014-15. Over half the residents admitted from HWLH CCG were seen at the Queen Victoria Hospital in East Grinstead.

**Child extractions in hospital**

According to the 2012 National Dental Survey of 5 year olds, 18.2% of five year olds had active tooth decay in East Sussex compared to 24.5% nationally, and 1.5% of this population had experience of extraction compared to 3.1% nationally. Nationally almost 26,000 children aged five to nine were admitted for extraction in 2013–14, a 14 per cent increase since 2010–11. This is much higher than in any other age group, making the development of good oral health in the early years vital. 5 year olds in Hastings have an average number of missing teeth (0.15) 25% greater than nationally (0.11) and nearly four times greater than for East Sussex as a whole (0.04). Children experiencing decay in Hastings are more likely to have missing teeth (4.2%) than nationally and locally.

Hastings had the greatest increase in hospital extractions (finished consultant episodes (FCEs)) of one or more decayed or permanent teeth for 0-19 year olds between 2011/12 (66 extractions) and 2012/13 (87 extractions) of all areas in East Sussex (Figure 41): the greatest increases being for 15-19 year olds (from 34 to 47) followed by 5-9 year olds (from 6 to 11). Rother had the greatest overall decrease in extractions (from 50 to 45) followed by Eastbourne (from 64 to 60).

The majority of extractions in five year olds will be performed under general anaesthetic (GA), and there has been a significant increase in hospital admissions in recent years in England. This can be an unpleasant and distressing experience for a young child, and may render the child less co-operative with future dental care.
**Special care dental service (SCDS)**

In the UK there are 313 Dentists on the Specialist list for Special Care Dentistry in the UK\(^7\), with the South East having the second greatest number of registered special care dentists (figure 42). In East Sussex there is a special care dental service (SCDS) providing: general anaesthetic sessions for those unable to tolerate dental treatment due to their young age or disability/condition; domiciliary visits for housebound patients; and oral health promotion activities such as oral health and mouthcare training for health and social care staff, support for families with young children and those with additional needs, and for primary school children in targeted schools.\(^8\)

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**Figure 41: Difference between number of FCEs for those aged 0 to 19 admitted to hospital for extraction 2011/12 and 2012/13 by district/borough**  
*Numbers under 6 excluded*

Source: HES data 2013

<table>
<thead>
<tr>
<th></th>
<th>Age 0-4yrs</th>
<th>Age 5-9yrs</th>
<th>Age 10-14yrs</th>
<th>Age 15-19yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastbourne</td>
<td>*</td>
<td>*</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Hastings</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>11</td>
</tr>
<tr>
<td>Lewes</td>
<td>*</td>
<td>*</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Rother</td>
<td>*</td>
<td>*</td>
<td>6</td>
<td>*</td>
</tr>
<tr>
<td>Wealden</td>
<td>*</td>
<td>6</td>
<td>11</td>
<td>16</td>
</tr>
</tbody>
</table>

**Figure 42: GDC registered Special Care Dentists per Region**


---
East Sussex SCDS provides dental treatment under general anaesthetic for a variety of patient groups, including under 16s referred for extractions due to dental caries by their General Dental Practitioner (GDP), medical practitioner or hospital maxillo-facial departments. All attempts to limit general anaesthesia and the number of teeth extracted should be put into place as this not only reduces the risk of morbidity, but also health service costs which are high. By identifying areas where patients referred for anaesthetic reside, better targeting of oral health promotion activities can be achieved with a view to reducing dental caries and, as a result, general anaesthetic referrals for this age group.279

In November 2015 an audit was undertaken of all paediatric patients who attended one of the East Sussex Healthcare NHS Trust Hospitals for multiple dental extractions under general anaesthetic (excluding those with special needs).280 The majority of operations were performed at Eastbourne District Hospital, with some procedures at The Conquest Hospital, St Leonards and Bexhill Day Surgery Unit. During 2014-2015, 314 paediatric patients (excluding special needs patients) had a general anaesthetic for dental treatment provided by the Special Care Dental Service. The mean age for this population was 7.4 years (range 2-15), and the mean number of teeth extracted per patient was 4.3 (range 1-20). The majority of the referrals were from GDPs and predominantly from the Hastings area. The greatest concentrations of patients treated were from the Hastings and St Leonards areas of the county. The audit recommended that a priority is to aim oral health promotion activities at the 47 schools, 11 children’s centres and 34 dental practices situated within the areas identified as having the highest numbers of referrals/patients.

**Spend on NHS Dental Services**

The value of the dentistry market in the UK has risen significantly over recent years, by around 90% between 1999-2000 and 2009-10. The dentistry market is valued at an estimated £5.73 billion a year, with spending on primary and secondary NHS services accounting for approximately 58% of the market value (£3.4 billion), and spending on private dental treatment accounting for the remaining 42% (£2.3 billion).281 While most other healthcare is free at the point of use, about half of NHS dental patients have to pay a substantial contribution to the cost of care.19 Unless they meet certain exemptions, adult patients make a financial contribution for receiving dental care from the NHS, with a 3-band fixed charge in place for primary care treatment depending on the care provided by the dental practice. The dental charges system contributed £653m to the NHS budget last year.282 Local costs for dental care in East Sussex are outlined in Chapter 8 of the needs assessment. The NHS in England has over 1 million patient contacts with NHS dental services in England each week.283

In 2014/15 patient charges for NHS dental treatment totalled £8,246,000 in East Sussex, compared to £7,930,700 in 2013/14. In both years the greatest proportion of this spend was for band 2 treatments (Table 14). We would expect the charges to be higher in Hastings and Rother CCG as there have been 10,000 more units of dental activity in NHS dental services in this area than in the other CCGs (Table 6, p57).284 Over the last year East Sussex has had a markedly lower proportion of overall patient charges for Band 1 treatments (examination, diagnosis and prevention), and a markedly higher proportion of patient charges for Band 3 treatments (which include Band 1 and 2 treatments as well as further laboratory work) than nationally, suggesting there may be lower proportions of people regularly seeing the dentist than nationally, and those who are attending may have more complex treatment needs.
Table 14: Patient charges (£) by treatment band, and CCG, 2013/15

<table>
<thead>
<tr>
<th></th>
<th>Total £</th>
<th>% of total</th>
<th>Band 1</th>
<th>Band 2</th>
<th>Band 3</th>
<th>Urgent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENGLAND</strong></td>
<td>£714,185,948</td>
<td>29%</td>
<td>37%</td>
<td>29%</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>East Sussex</td>
<td>£8,246,028</td>
<td>25%</td>
<td>35%</td>
<td>34%</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>NHS EH&amp;S</td>
<td>£2,535,090</td>
<td>28%</td>
<td>34%</td>
<td>32%</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>NHS H&amp;R</td>
<td>£2,971,775</td>
<td>24%</td>
<td>37%</td>
<td>34%</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>NHS HWLH</td>
<td>£2,739,163</td>
<td>25%</td>
<td>34%</td>
<td>35%</td>
<td></td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: HSCIC, Aug 2015

Satisfaction with dental services

In 2014/15, 82.3% of people using NHS dental services reported them to be “very” or “fairly” good, a slight fall from 2011/12 (83.1%) and lower than the national average (84.6%). Since 2011, the percentage of patients satisfied with the NHS dental services they received in East Sussex has consistently been lower than the national average. However, it is only in 2014/15 that levels of satisfaction have also fallen below the regional average (Figure 43).

Figure 43: Percentage of people reporting a 'very good' or 'fairly good' experience of NHS dental services

However, there is variation of service satisfaction within East Sussex. For example, people in Hastings report higher levels of satisfaction with NHS dental services than both nationally and regionally, and this has been rising over the last couple of years. Conversely, Wealden has seen falling satisfaction with dental services to below national, regional and local averages, while Eastbourne is consistently markedly lower than other local areas (Figure 44).
The 2013 child dental health survey for England found just over 9 in 10 parents were satisfied with the last dental practice visit for their child. Satisfaction was markedly lower for time waiting for an appointment, falling to 80% for routine appointments and 78% for urgent appointments. Data has not been released at a lower tier level.

Projected future need

Local population projections to 2020 (Figure 45) suggest that over the next six years the population of East Sussex will increase by approximately 1.8% from 540,000 to 550,000: a 0.9% increase in males and 2.7% increase in females in the county. While the 65 years and over population is expected to increase by 19.5% from 92,950 to 115,500 in this period, the 0 to 19 year old population is projected to decrease by 3.5% from 117,300 to 113,400. The main expected falls in population are in 15 to 19 year olds (-30%), 20 to 29 year olds (-14%) and 40 to 49 year olds (-14%).

All districts and boroughs are expected to have an increase in their overall population by 2020, with the exception of Eastbourne which is projected to fall by 0.3%. Wealden is projected to see the greatest population increase of 3.7%. This increase in the older population in particular presents a challenge as there's a clear additional burden on the provision of all health and social care services in meeting the increased need and demand of the growing local population.
The population of the UK is ageing, with more than one in twelve of the population projected to be aged over 80 years by 2039.\textsuperscript{287} Ageing of the population refers to both the increase in the average (median) age of the population and the increase in the number and proportion of older people in the population. This demographic change is largely attributed to past improvements in mortality rates across all age groups and continuing improvements in mortality rates at the oldest ages combined with a decline in increasing life expectancy and overall past decline in fertility rates.\textsuperscript{288} In England, the proportion of the population aged 65 years and over is expected to increase from 17\% in 2010 (9.3 million) to 23\% (15.3 million) in 2035.

As previously stated, the likelihood of retaining a high number of teeth for life is now very high. This means that the need for dental services to be accessible to the older population, and to those who are medically compromised at a time when they may be less able to cope with treatment, will only increase. It also means that any dental treatment required may be more complex due to a higher need for restorative and prosthetic work.
SECTION SUMMARY

Service Provision

Nationally
- Approximately £3.4 billion is spent on primary and secondary NHS dental services per year, and £2.3 billion on private dental treatment.
- Early years promotion of oral health is vital as 5-9 year olds are more likely to be admitted for extraction than any other age group.
- There has been a significant increase in oral health related hospital admissions for children in England in recent years.

East Sussex
- There is a lack of data on those using private dental services in East Sussex.
- East Sussex has a higher rate of dental activity for band 3 treatments (which include laboratory work) than nationally, particularly in Hastings and Rother CCG.
- There is high provision of domiciliary services in East Sussex compared with England, particularly in Hastings and Rother CCG.
- There are fewer sedations in East Sussex than nationally, although the percentage of sedations in High Weald Lewes Havens CCG is higher than locally and nationally.
- Average UDA per resident varies across East Sussex, however, 7 of the 10 wards with the highest units of dental activity are in the most deprived quintile.
- Those aged over 65 years have the highest UDA rate per patient in East Sussex, supporting indications of more complicated oral health needs for older people.
- Conversely to those aged 0-19 and 20-64, those aged 65 and older have higher UDA rates in some of the least deprived wards, corresponding with evidence that those in less deprived areas retain more teeth in later life.
- East Sussex has a lower percentage of 0-17 year olds seen by an NHS dentist over the last two years (63%) than nationally (70%) across all three CCGs. However, there is no available data on those not attending, attending a private service, or attending a practice outside East Sussex to put this finding into context.
- People in East Sussex who are not accessing NHS dentistry are more likely to say they prefer to go to a private dentist (30%) than nationally (21%).
- 5 year olds are half as likely to have teeth extracted (1.5%) than nationally (3.1%).
- 5 year olds in Hastings are more likely to have decay and a greater average number of missing teeth than both nationally and locally.
- The ageing population indicates increasing need for accessible dental services for older people, and for more complex restorative and prosthetic treatment.
10. RECOMMENDATIONS

RECOMMENDATIONS
The following recommendations are based on the evidence within this needs assessment.

RECOMMENDATIONS FOR ORAL HEALTH PROMOTION AND PREVENTION:
• There should be agreement of a multi-partnership Oral Health Promotion Strategy for the county, aiming to integrate evidence based oral health promotion programmes into existing commissioned programmes. This should aim to:
  o Tackle the social determinants of oral disease
  o Implement a common risk factor approach focusing on the wider determinants as well as facilitating healthy choices to impact on both oral health and wider general health
  o Target vulnerable groups
  o Actively prevent oral disease through community and practice based prevention
  o Encourage parent/carers to take their children to a dentist when the first tooth appears
  o Integrate dental health promotion into general health promotion
• Local oral health improvement programmes should be revised in line with Commissioning Better Oral Health and NICE guidance
• Oral health promotion and prevention should also have a focus on lifestyle factors – including actions to address the high incidence of oral cancer in Hastings
• Oral health promotion services and primary care dental teams should work closely with local stop smoking service to implement national ‘Smokefree and Smiling’ guidance
• There should be targeted oral health promotion in areas of greater deprivation, which have been identified as having greater decay and oral health inequality, particularly in Hastings
• There should be a focus on prevention in “Early Years” setting to address the higher risk of oral health issues for children under 5.
• Evaluation should be integral to all oral health improvement programmes to guide future commissioning

TECHNICAL RECOMMENDATIONS:
• Public health and ward level data relating to oral health and associated risk factors (where available) should be utilised to help inform any oral health promotion commissioning intentions and decisions and make sure they continue to reflect local needs.
• Public health should work with NHS England and the local Dental Committee to promote the implementation of Delivering Better Oral Health in NHS dental practices, focusing on the increase in fluoride varnish applications for children, smoking cessation, alcohol IBAs, and working to improve dental attendance amongst more deprived groups so a full range of preventative care, advice and treatment is accessed.
• A combination of evidence based universal and targeted activities are required to support reducing inequalities in oral health.
• For adults at high risk of poor oral health, new national guidance should be adopted:
  o That there should be regular training for frontline health and social care professionals working with adults at high risk of poor oral health, and
  o That oral health promotion should be incorporated into existing services, including signposting and support to attend regularly.
RECOMMENDATIONS FOR FURTHER WORK

- Local surveys should be planned to address the paucity of data on certain vulnerable groups. For example, older people in residential care, people with disabilities, impact of poorly fitting dentures on nutrition in older people, people with severe mental health problems and substance misusers, and those in more deprived areas.
- Work with the PHE Dental Public Health Consultant to develop ways of using routine data to identify areas of poor oral health and monitor the impact of oral health improvement.
- Local oral health data should be collated in a timely way.
- There is a need to consider how to collect more robust data in view of the impact of positive consent on completeness of current dental epidemiological data.
### 11. APPENDICIES

#### APPENDIX 1: Advice and intervention from the Delivering Better Oral Health Toolkit (professional interventions in bold):

<table>
<thead>
<tr>
<th>Strength of evidence</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Strong evidence from at least one systematic review of multiple well-designed randomised control trial/s.</td>
<td>III</td>
</tr>
<tr>
<td>II</td>
<td>Strong evidence from at least one properly designed randomised control trial of appropriate size.</td>
<td>I</td>
</tr>
<tr>
<td>III</td>
<td>Evidence from well-designed trials without randomisation, single group pre-post, cohort, time series of matched case-control studies.</td>
<td>I</td>
</tr>
<tr>
<td>IV</td>
<td>Evidence from well-designed non-experimental studies from more than one centre or research group.</td>
<td>II</td>
</tr>
<tr>
<td>V</td>
<td>Opinions of respected authorities, based on clinical evidence, descriptive studies or reports of expert committees.</td>
<td>III</td>
</tr>
<tr>
<td>VI</td>
<td>Good practice</td>
<td>V</td>
</tr>
</tbody>
</table>

#### Preventing Caries

**Prevention of caries in children aged up to 3 years**

- **Breast feeding provides the best nutrition for babies** I
- **From six months of age infants should be introduced to drinking from a free-flow cup, and from age one year feeding from a bottle should be discouraged** III
- **Sugar should not be added to weaning foods or drinks** V
- **Parents/carers should brush or supervise tooth brushing** I
- **As soon as teeth erupt in the mouth brush them twice daily with a fluoridated toothpaste** I
- **Brush last thing at night and on one other occasion** III
- **Use fluoridated toothpaste containing no less than 1,000ppm fluoride** I
- **It is good practice to use only a smear of toothpaste** GP
- **Reduce the frequency and amount of sugary food and drinks** III/I
- **Sugar-free medicines should be recommended** III

**Prevention of caries in children aged 3-5 years**

- **Brush at least twice daily, with a fluoridated toothpaste** I
- **Brush last thing at night and at least on one other occasion** III
- **Brushing should be supervised by a parent/carer** I
- **Use fluoridated toothpaste containing over 1,000 ppm fluoride** I
- **It is good practice to use only a pea size amount** GP
- **Spit out after brushing and do not rinse, to maintain fluoride concentration levels** III
- **Reduce the frequency and amount of sugary food and drinks** III/I

#### Sugar-free medicines should be recommended

<table>
<thead>
<tr>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>III</td>
</tr>
</tbody>
</table>

- **Apply fluoride varnish to teeth two times a year (2.2% NaF-)** I

**Children aged 0-6 years giving concern (e.g. those likely to develop caries, those with special needs)**

- **All advice as above plus:**
  - Use fluoridated toothpaste containing 1,350-1,500ppm fluoride I
  - It is good practice to use only a smear or pea size amount GP
  - Where medication is given frequently or long term request that it is sugar free, or used to minimise cariogenic effects I
  - **Apply fluoride varnish to teeth two or more times a year (2.2% NaF-)** II
  - **Reduce recall interval** GP
  - **Investigate diet and assist adoption of good dietary practice in line with the eatwell guide** V/I
  - **Where medication is given frequently or long term, liaise with medical practitioner to request it is sugar free, or used to minimise cariogenic effects** GP

**Children and young adults aged from 7 years**

- **Brush at least twice daily, with a fluoridated toothpaste** I
- **Brush last thing at night and at least on one other occasion** III/I
- **Use fluoridated toothpaste (1,350-1,500ppm fluoride)** I
- **Spit out after brushing and do not rinse, to maintain fluoride concentration levels** III
- **Reduce the frequency and amount of sugary food and drinks** III/I
- **Apply fluoride varnish to teeth two times a year (2.2% NaF-)** I

**Children and young adults aged from 7 years giving concern**

- **All the above, plus:**
  - Use a fluoride mouth rinse daily (0.05% NaF-) at a different time to brushing I
  - **Fissure seal permanent molars with resin sealant** I
  - **Apply fluoride varnish to teeth two or more times a year (2.2% NaF-)** I
  - **For those 16+ years with active disease prescribe daily fluoride rinse** I
  - **For those 10+ years with active caries prescribe 2,800 ppm fluoride toothpaste** I
  - **For those 8 years upwards with active caries prescribe either 2,800ppm or 5,000ppm fluoride toothpaste** I
  - **Investigate diet and assist to adopt good dietary practice in line with the eatwell guide** I

#### Prevention of caries in adults

- **Brush at least twice daily, with a fluoridated toothpaste** I
- **Brush last thing at night and at least on one other occasion** III/I
- **Use fluoridated toothpaste with at least 1350ppm fluoride** I
- **Spit out after brushing and do not rinse, to maintain fluoride concentration** III
- **Reduce the frequency and amount of sugary food and drinks** III/I
### Adults giving concern to their dentist

<table>
<thead>
<tr>
<th>All the above, plus:</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Use a fluoride mouth rinse daily (0.05% NaF-) at a different time to brushing</td>
<td></td>
</tr>
<tr>
<td>• <strong>Apply fluoride varnish to teeth twice yearly (2.2% NaF-)</strong></td>
<td></td>
</tr>
<tr>
<td>• For those with active coronal or root caries prescribe daily fluoride rinse</td>
<td></td>
</tr>
<tr>
<td>• For those with obvious active coronal or root caries prescribe 2,800 or 5,000ppm fluoride toothpaste</td>
<td></td>
</tr>
<tr>
<td>• Investigate diet and assist to adopt good dietary practice in line with the eatwell guide</td>
<td></td>
</tr>
</tbody>
</table>

### Preventing Periodontal Disease

<table>
<thead>
<tr>
<th>Prevention of periodontal disease to be used in addition to caries prevention</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-care plaque removal</strong></td>
<td>III</td>
</tr>
<tr>
<td>• Remove plaque effectively using methods shown by the dental team</td>
<td></td>
</tr>
<tr>
<td>• This will prevent gingivitis and reduces the risk of periodontal disease</td>
<td></td>
</tr>
<tr>
<td>Daily, effective plaque removal is more important to periodontal health than tooth scaling and polishing by the clinical team</td>
<td></td>
</tr>
<tr>
<td><strong>Tooth brushing and toothpaste</strong></td>
<td>V</td>
</tr>
<tr>
<td>• Brush gum line AND each tooth twice daily (before bed and at least on one other occasion)</td>
<td></td>
</tr>
<tr>
<td><strong>Use either</strong></td>
<td></td>
</tr>
<tr>
<td>• Manual or powered toothbrush</td>
<td>I</td>
</tr>
<tr>
<td>• Small toothbrush head, medium texture</td>
<td>V</td>
</tr>
<tr>
<td>• <strong>Advise best methods of plaque removal to prevent gingivitis, achieve lowest risk of periodontitis and tooth loss.</strong></td>
<td></td>
</tr>
<tr>
<td>• <strong>Use behaviour change methods with oral hygiene instruction</strong></td>
<td></td>
</tr>
<tr>
<td>• Correct factors which impede effective plaque control including; supra- and subgingival calculus, open margins and restoration overhangs and contours which prevent effective plaque removal</td>
<td></td>
</tr>
<tr>
<td>• With extensive inflammation start with toothbrushing advice, followed by interdental plaque control</td>
<td></td>
</tr>
<tr>
<td>• Assess patient’s/parent/carer’s preferences for plaque control</td>
<td></td>
</tr>
<tr>
<td>• Decide on manual or powered toothbrush</td>
<td>GP</td>
</tr>
<tr>
<td>• Demonstrate methods and types of brushes. Assess plaque removal abilities and confidence with brush</td>
<td></td>
</tr>
<tr>
<td>• Patient sets target for tooth brushing for next visit</td>
<td>V</td>
</tr>
<tr>
<td>• Assess patient’s interdental plaque control preferences</td>
<td></td>
</tr>
<tr>
<td>• Decide on appropriate interdental kit</td>
<td>V</td>
</tr>
<tr>
<td>• Demonstrate methods and types of kit</td>
<td></td>
</tr>
<tr>
<td>• Assess plaque removal abilities and confidence with kit</td>
<td></td>
</tr>
<tr>
<td>• Patient sets target for interdental plaque control</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Department of Health, 2014*
<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>East Sussex</th>
<th>Eastbourne</th>
<th>Hastings</th>
<th>Lewes</th>
<th>Rother</th>
<th>Wealden</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5 year old pop</strong> (2011)</td>
<td>635,925</td>
<td>5,665</td>
<td>1,017</td>
<td>1,067</td>
<td>1,018</td>
<td>853</td>
<td>1,710</td>
</tr>
<tr>
<td><strong>Sample</strong></td>
<td>204,640</td>
<td>640</td>
<td>38</td>
<td>183</td>
<td>101</td>
<td>146</td>
<td>172</td>
</tr>
<tr>
<td><strong>Examined</strong></td>
<td>133,516</td>
<td>360</td>
<td>22</td>
<td>99</td>
<td>56</td>
<td>87</td>
<td>96</td>
</tr>
<tr>
<td><strong>Mean d₃mft</strong></td>
<td>0.94</td>
<td>0.68</td>
<td>0.84</td>
<td>0.98</td>
<td>0.59</td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td><strong>Mean decayed teeth</strong></td>
<td>0.73</td>
<td>0.47</td>
<td>0.44</td>
<td>0.58</td>
<td>0.50</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td><strong>Mean missing teeth (extracted)</strong></td>
<td>0.11</td>
<td>0.04</td>
<td>0.15</td>
<td>0.03</td>
<td>0.02</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td><strong>Mean filled teeth</strong></td>
<td>0.11</td>
<td>0.17</td>
<td>0.25</td>
<td>0.37</td>
<td>0.08</td>
<td>0.21</td>
<td></td>
</tr>
<tr>
<td><strong>% d₃mft&gt;0</strong></td>
<td>29.9%</td>
<td>22.4%</td>
<td>29.3%</td>
<td>23.1%</td>
<td>20.0%</td>
<td>17.2%</td>
<td></td>
</tr>
<tr>
<td><strong>Mean d₃mft (for % d₃mft&gt;0)</strong></td>
<td>3.38</td>
<td>3.03</td>
<td>2.85</td>
<td>4.24</td>
<td>2.96</td>
<td>2.59</td>
<td></td>
</tr>
<tr>
<td><strong>% decayed teeth &gt;0</strong></td>
<td>24.5%</td>
<td>18.2%</td>
<td>22.9%</td>
<td>21.7%</td>
<td>18.5%</td>
<td>11.8%</td>
<td></td>
</tr>
<tr>
<td><strong>% missing teeth &gt;0</strong></td>
<td>3.1%</td>
<td>1.5%</td>
<td>4.2%</td>
<td>1.3%</td>
<td>1.5%</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Care index %</strong></td>
<td>11.2%</td>
<td>24.9%</td>
<td>30.2%</td>
<td>38.2%</td>
<td>13.5%</td>
<td>46.0%</td>
<td></td>
</tr>
<tr>
<td><strong>% abscess/ sepsis</strong></td>
<td>1.7%</td>
<td>0.5%</td>
<td>0.8%</td>
<td>0.0%</td>
<td>1.0%</td>
<td>0.0%</td>
<td></td>
</tr>
</tbody>
</table>
56 NICE (Oct 2014) Oral health: approaches for local authorities and their partners to improve the oral health of their communities. NICE public health guidance 55.
75 See Humphris, Morrison, and Lindsay, 1995, “The Modified Dental Anxiety Scale: validation and United Kingdom norms”. Community Dent Health Sep 12 (3) 143-50.
87 DfCSF and DoH (2009) Statutory guidance on promoting the health and well-being of looked after children.
94 Department for Education (March 2015) Outcomes for children looked after by local authorities: Local authority tables.
99 Thomson WM. Epidemiology of oral health conditions in older people. Gerodontology 2014 ;31 (suppl.) 9-16.
100 Srinivasulu et al., Relationship between stimulated salivary factors, dental caries status and nutritional condition among institutionalised elderly people. Oral Health and Dental Management 2014 vol./is 13/1 (49-53).
104 Borreani et al., Improving access to dental care for older people Dental Update June 2010, 37: 297-302.
106 Carson S, Edwards M Barriers to providing dental care in older people Evidence-Based Dentistry, March 2014, vol./is. 15/(14-5), 1462-0049;1476-5446
problems and ensuring access to dental treatment for adults in nursing and residential care homes
112 NHS Information Centre (2011) Adult Dental Health Survey 2009
114 Age UK (2014) Later Life in the United Kingdom
116 PHE (Dec 2014) Dental public health intelligence programme
North West oral health survey of services for dependent older people, 2012 to 2013 Summary of findings
118 http://www.kent.ac.uk/cpp/sohopj/project.html
http://www.onemeetings.com/
120 Race Equality Foundation (2013) Oral Health and Access to Dental Services for People from Black and Minority Ethnic Groups
121 Race Equality Foundation (2013) Oral Health and Access to Dental Services for People from Black and Minority Ethnic Groups
129 ONS (2014) Census 2011 and census 2001 Ethnic group by sex, age and district
131 Department of Health (2005) Homelessness and Health information Sheet Number 3: Dental Services
137 Department of Health (2005) Homelessness and Health information Sheet Number 3: Dental Services
138 Department of Health (2005) Homelessness and Health information Sheet Number 3: Dental Services
140 ESCH Public Health (2016) Homeless Health Audit
141 Joint Advisory Committee for Special Care Dentistry (2003) Training in Special Care Dentistry; London JACSD.
142 Clinical Guidelines and Integrated Care Pathways for the Oral Health Care of People with Learning Disabilities 2012
143 Valuing People’s Oral Health A good practice guide for improving the oral health of disabled children and adults
144 Valuing People’s Oral Health A good practice guide for improving the oral health of disabled children and adults
145 British society of disability and oral health and DoH (2007) Commissioning tool for special care dentistry
146 Valuing People’s Oral Health A good practice guide for improving the oral health of disabled children and adults
147 Clinical Guidelines and Integrated Care Pathways for the Oral Health Care of People with Learning Disabilities 2012
148 Valuing People’s Oral Health A good practice guide for improving the oral health of disabled children and adults
151 Foundation for People with Learning Disabilities (accessed March 2015) www.learningdisabilities.org.uk
153 Dickerson et al; 2003. Socioeconomic healthcare utilization among adults with serious mental illness who are receiving community psychiatric services. Med Care, 41, 560-70.
154 Wieland et al., 2010. Partnership evaluation: public mental health and dental services. Australasian Psychiatry vol./s. 18(6):506-11, 1039-8562;1440-1665
163 DH No Health Without Mental Health: A cross-government mental health outcomes strategy for people of all ages. 2011
http://www.bmj.com/content/346/bmj.e7492?view=long&printc
245 2008;122: 2811
219 http://www.schoolfoodplan.com/
220 https://www.nhs.uk/change4life-beta/campaigns/sugar-smart/home
229 Public Health England (Feb 2015) An oral health needs assessment of vulnerable groups in Camden and Islington
231 NHS Information Centre (2011) Adult Dental Health Survey 2009
241 Conway DI. Everything in moderation...? Evidence Based Dentistry, 2010;11(3);89-90.
243 Conway et al. Incidence of oral and oropharyngeal cancer in United Kingdom
245 NHS Scotland (2012) Alcohol and Oral Health: Understanding risk, raising awareness and giving advice
246 Public Health England (Feb 2015) An oral health needs assessment of vulnerable groups in Camden and Islington
252 Department of Health (2016) UK Chief Medical Officers Alcohol Guidelines Review: Summary of the proposed new guidelines
256 Local Government Association (2014) Tackling poor oral health in children: Local government’s public health role
257 NHS Choices (2016) Children’s teeth
http://www.nhs.uk/Livewell/DentalHealth/Pages/ChildrensTeeth.aspx
258 HSCIC (Dec 2015) NHS Dental Services of the BHS Business Authority Table E7, E8, E9: Percentage of adult courses of treatment that contain each clinical treatment by Local Authority, 2014/15
259 HSCIC (Aug 2015) NHS Dental Services of the BHS Business Authority Table B1, B2, B3: Courses of Treatment performed, by treatment band
260 HSCIC (Aug 2015) NHS Dental Services of the BHS Business Authority Table D1: Courses of treatment with domiciliary visits and sedations by CCG, from 2013/14
261 HSCIC (Dec 2015) NHS Dental Services of the BHS Business Authority Table B6, B3: Courses of Treatment performed, by treatment band and Local Authority, from 2014/15
265 Department of Health (2010): Equity and Excellence: Liberating the NHS Gateway: 14385
266 NHS England (2014) Improving Dental Care and Oral Health – a call to action
270 Health and Social Care Information Centre (Feb 2015) NHS Outcome Framework – Indicator 4.4.ii
272 SUS data provided by South East CSU (2015) Finished Admission Episodes
273 SUS data provided by South East CSU (2015) Finished Admission Episodes
274 Public Health England (October 2014) Dental Health Profile: East Sussex
279 East Sussex Healthcare NHS Trust (November 2015) Postcode analysis of paediatric patients (under 16) residing in the East Sussex area; patients referred for dental extractions under general anaesthetic due to dental caries, surgical clinical unit, Special Care Dental Service.
280 East Sussex Healthcare NHS Trust (November 2015) Postcode analysis of paediatric patients (under 16) residing in the East Sussex area; patients referred for dental extractions under general anaesthetic due to dental caries, surgical clinical unit, Special Care Dental Service.
282 NHS England (Feb 2014) Improving Dental Care and Oral Health – A call to action
283 NHS England (2014) Improving Dental Care and Oral Health – a call to action