



Kent Joint Strategic Needs Assessment (Kent JSNA)

Kent 'Dental Health Children' JSNA Chapter Summary Update '2014/15'

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Kent Dental Health in Children JSNA Chapter Update 2014

Introduction

Oral health refers to the condition of gums, teeth, surrounding bone and soft tissues of the mouth enabling function and being free of disease and pain. Although the oral health of children in England has generally improved over the past few decades, there are still children with unacceptable tooth decay levels. Furthermore, the distribution of tooth decay varies geographically across Kent and Medway, with proportionately more children in the more deprived local authority areas experiencing tooth decay. Tooth decay in children is often not treated, the consequences of which include pain and discomfort on chewing, which may affect children's growth and development.

Tooth decay in children is largely preventable. The risk factor is a frequent and high sugar diet, which is also common to diabetes and obesity. The availability of topical fluoride such as in toothpastes, varnishes and mouth rinses helps to prevent tooth decay.

NHS dental access rates for children for the years 2012-14 indicate that Kent has a lower rate than the South East region (66% and 69% respectively). This disparity in dental access may be due to a lack of capacity, or a lack of ability to use dental services.

Key Issues and Gaps

- lack of comprehensive census survey data of tooth decay experience
- current available data suggest that nearly one in five, five- and 12-year-olds and one in 12, three-year-old children have experience of tooth decay
- lack of a coordinated approach to oral health promotion activities that include topical fluoride therapy for children
- geographical inequality in uptake of primary care dental services
- geographical inequality in commissioned activity per population.

Who's at Risk and Why?

Tooth decay is caused by the frequent consumption of sugary foods and drinks, which are metabolised by bacteria in the mouth resulting in the production of acids. These acids dissolve the substance of the tooth and over time, can eventually lead to the formation of cavities.

Children of all ages are at risk of tooth decay. However, in common with other chronic diseases, those from socially deprived backgrounds are more likely to experience tooth decay (Watt and Sheiham, 1999; Locker, 2000). Additionally, vulnerable groups such as children with a learning disability are more susceptible to tooth decay.

Fluoride in drinking water is protective against dental decay. In Kent the population does not benefit from fluoridated water as natural levels are low and none is added (The British Fluoridation Society, 2004).

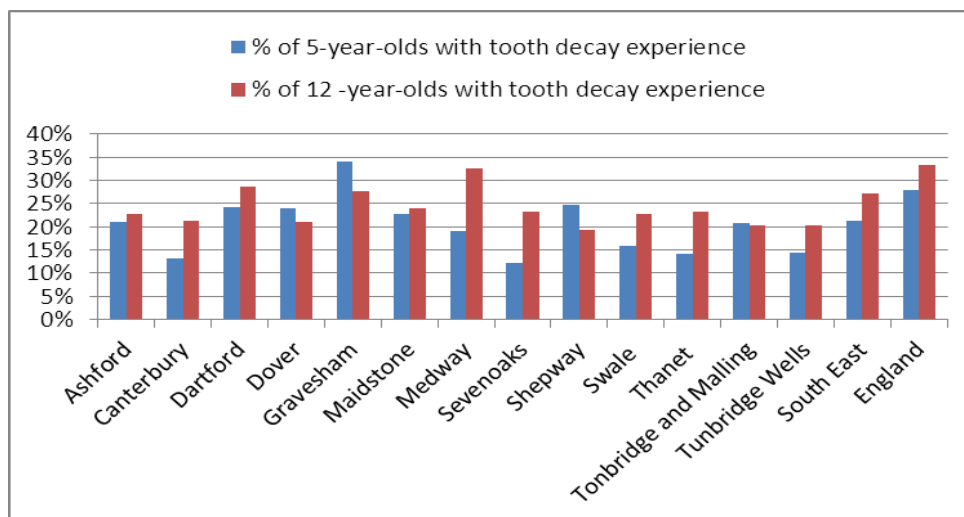
The level of Need in the Population

The level of dental need may be estimated from national dental health surveys of three-, five- and 12-year-olds carried out in 2013, 2011/12 and 2008/09 respectively.

While most children were free of tooth decay, some 6% of three-year-olds, 19% of five-year-olds and 23.6% of 12-year-olds in Kent and Medway were estimated to have experience of tooth decay (Figure 1a and b).

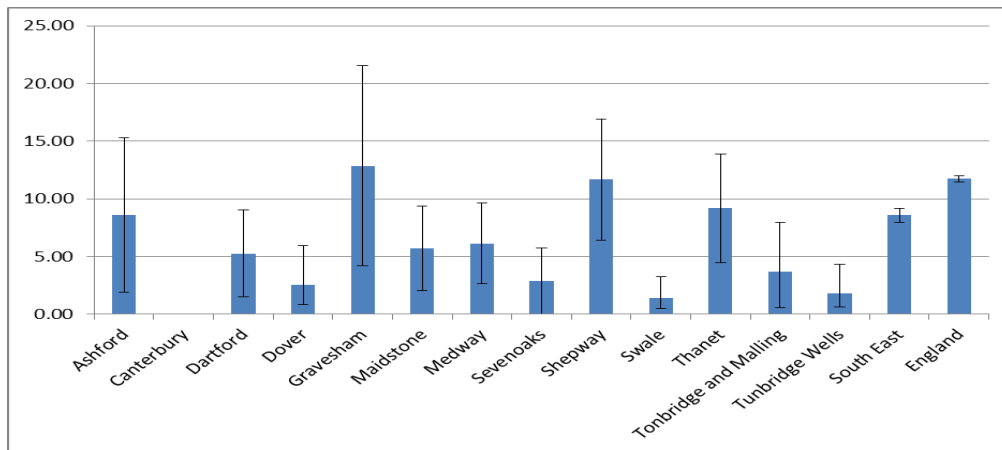
Of those with experience of tooth decay, an average of 2.9 decayed, missing and filled deciduous teeth (d_3mft) was reported for three-year olds, an average 3.2 decayed, missing and filled deciduous teeth ($dmft$) was reported for five-year-olds and an average 2.0 decayed, missing and filled permanent teeth ($DMFT$) for 12-year-olds (Figure 2a and b). Although lower in prevalence and severity when compared to the national average, geographical variations in the experience of tooth decay within Kent and Medway are clearly evident. Care needs to be taken when interpreting the three-year-old data, due to the low number examined in each area creating a wide margin of error. Confidence intervals have been added to figure 1b and 2b to illustrate this.

Figure 1a: Prevalence of tooth decay experience in five year-olds 2012 and 12-year-olds in 2009 in Kent/Medway lower tier authorities. Average for five-year-olds=19.5% and for 12-year-olds=23.6%.



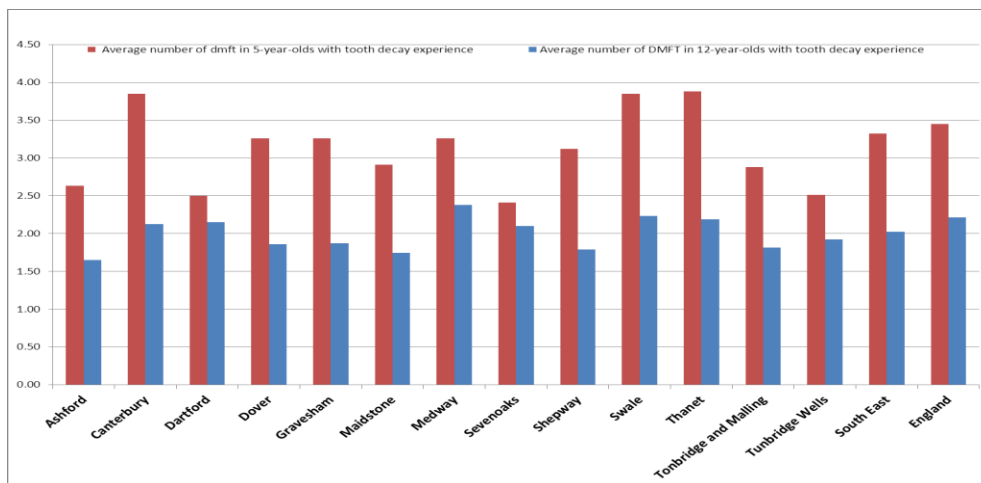
Source: National Dental Epidemiology Programme for England: Oral Health Survey of 5- and 12-year olds in 2012 and 2008/9

Figure 1b: Prevalence of tooth decay experience in 3-year-olds 2013 in Kent/Medway lower tier authorities shown by percentage of 3-year-olds with tooth decay experience. Average for 3-year olds =5.5%



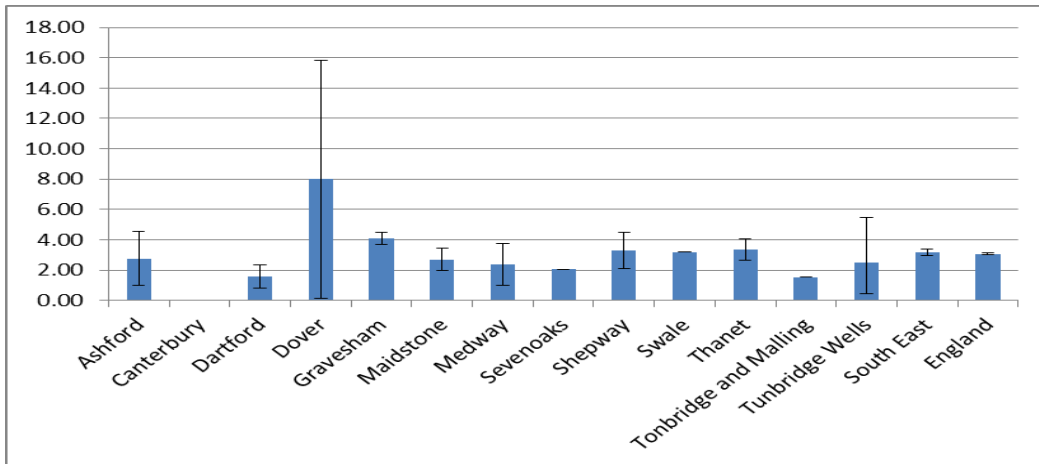
Source: Dental Public Health Epidemiology Programme for England: Oral Health Survey of three-year-old children 2013

Figure 2a: Severity of tooth decay experience as measured by the number of decayed, missing and filled deciduous teeth (dmft) in five-year-olds and permanent teeth (DMFT) in 12-year-olds. Average for five year-olds 3.08 and for 12 year olds 2.



Source: National Dental Epidemiology Programme for England: Oral Health Survey of 5- and 12-year olds in 2012 and 2008/09

Figure 2b: Severity of tooth decay experience as measured by the number of decayed, missing and filled deciduous teeth (d₃mft) in three-year-olds. Average for three-year-olds=2.9



Source: Dental Public Health Epidemiology Programme for England: Oral Health Survey of three-year-old children 2013

Figure 3a: Correlation between proportion of three-year-old children with experience of dental decay (%d₃mft>0) and the Index of Multiple Deprivation (IMD 2010) score.

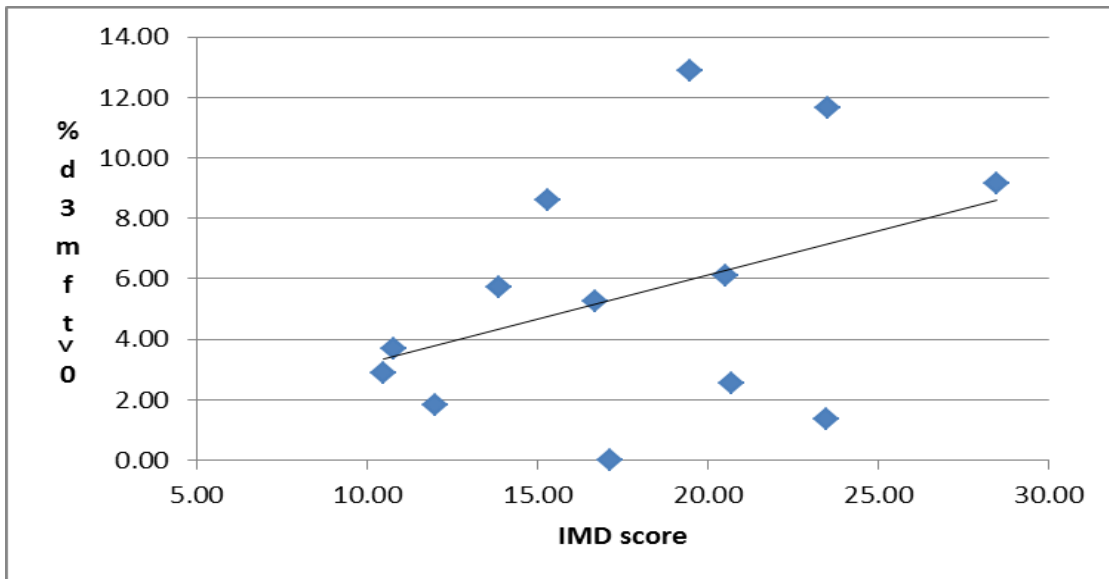
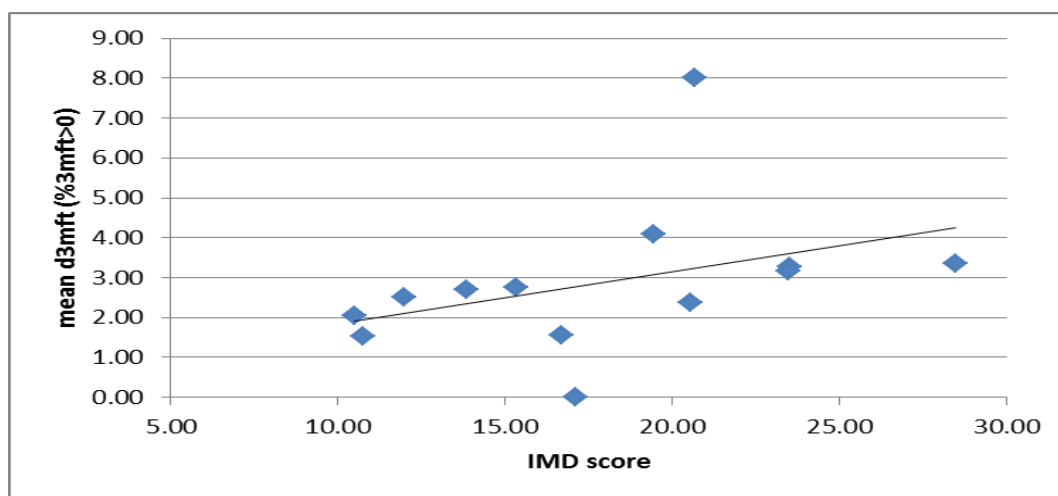


Figure 3b: Correlation between severity of decay experience and the Index of Multiple Deprivation (IMD 2010) score.



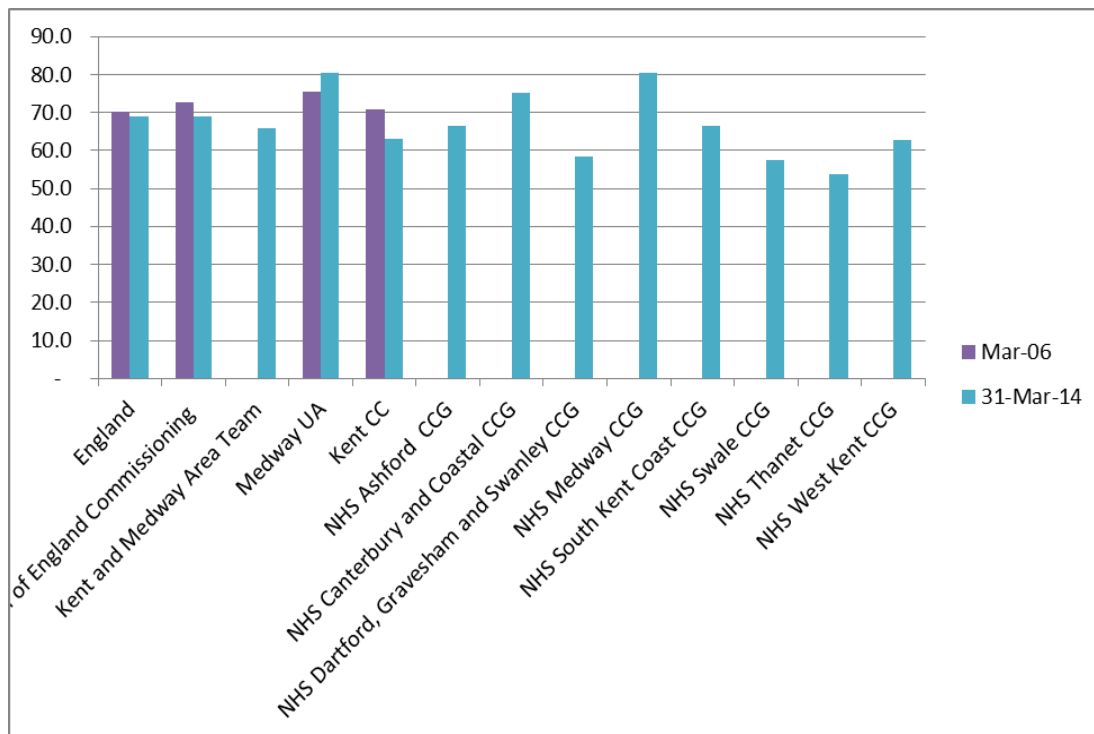
Only a weak correlation between the Index of Multiple Deprivation 2010 and the levels of decay in three-year-olds within Kent and Medway has been shown (Figure 3a and 3b), this correlates with the national findings and is in contrast to the correlation shown by the results for five-year-olds.

Current Services in Relation to Need

Most NHS dental services for children are provided in the primary care setting. Dental services are commissioned geographically but individuals may access any dentist they wish. Since introduction of the new dental contract in 2006 primary care dental services have been procured in areas of need as identified in oral health needs assessments (OHNAs). However, the dental activity commissioned varied across KCC which suggests an inequity in the availability of dental services may exist.

The use of dental services as measured by the numbers of child patients seen as a proportion of the population also suggests that there are gaps in current service provision (Figure 4). For example, NHS dental access in the Kent County Council area is lower than in Medway. This disparity in dental access may be a lack of capacity, or a lack of ability to use dental services.

Figure 4: Dental access for children as shown by numbers of child patients as a percentage seen in the previous 24 months in England, the South of England and Kent and Medway areas for March 2006 and March 2014. (Data are not available for March 2006 for the area team, local authorities and CCG's)



Health and Social Care Information Centre 2014

Looked-after children access dental care in Kent through a recognised referral and dental care pathway. There is multidisciplinary input including initial assessment and treatment planning at the community dental service. This results in referral to specialist paediatric dentists if required or referral on to a general dental practitioner for treatment and regular recalls as appropriate. An oral health log book is kept to record dental visits, treatment and oral health promotion input for each child.

Oral health promotion services are commissioned from the salaried and community dental services providers. A coordinated strategy is needed to reduce the oral health inequalities in children, focussing especially on pre-school children.

Projected Service Use and Outcomes in Three-Five Years and Five-5-10 Years

Kent has a higher population of children than the regional and national average. This is expected to continue over the next 25 years. Although numbers of children are increasing the proportion they make up of the population is decreasing because of the increasing numbers of older people (ONS, 2010). Nearly a quarter of the Kent population is under 20 years old (Child and Maternal Health Observatory, 2011).

Current guidance recommends that all children at risk of developing caries should visit the dentist at least twice a year for prevention of tooth decay through topical fluoride therapy. Service use for prevention should therefore be promoted, especially in areas of high tooth decay prevalence.

Evidence of What Works

Delivering Better Oral Health – a toolkit for prevention provides an evidence base of interventions for prevention of dental diseases in children (Department of Health, 2014). To view please see attached PDF document.

Prevention and management of dental decay in the pre-school child: A national clinical guideline outlines the evidence-based strategies for controlling tooth decay in preschool children (SIGN 83, 2005).

Scottish Intercollegiate Guidelines Network

Guideline 83: Prevention and management of dental decay in the pre-school child - Full guideline (Superseded by SIGN No 138) <http://sign.ac.uk/pdf/SIGN138.pdf>

NHS Dental Epidemiological Survey of three year olds: school year 2012/13.
[http://www.nwph.net/dentalhealth/survey-results%203\(12_13\).aspx](http://www.nwph.net/dentalhealth/survey-results%203(12_13).aspx)

Unmet Needs and Service Gaps

Although most children in Kent and Medway enjoy good oral health, one in five five- and 12-year-olds experience an average of at least two teeth affected by decay. Further oral health promotion services are therefore needed to address this disparity.

Additionally, dental attendance rates are variable across Kent and Medway. The need for clinical prevention would not appear to have been met and this needs to be developed.

Recommendations for Commissioning

- a Ensure the continuation of the National Epidemiological programme in Kent.
- b Promote a co-ordinated approach to the control of tooth decay through evidence-based oral health promotion interventions and the common risk approach.
- c Promote orientation of primary care dental services to focus on prevention in line with *Delivering Better Oral Health – a toolkit for prevention* (Department of Health, 2014).
- d Promote regular dental visits for prevention.
- e Promote development of an appropriate skills-mix workforce in order to meet the dental needs of the population effectively and efficiently.
- f Promote collaboration with other health workers such as health visitors to deliver oral health messages.

Further Needs Assessment Required

- oral health need of families with young children
- oral health need of children with a disability.

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