

# Draft Joint Strategic Needs Assessment of Oral Health in Swindon

## Summary

- This JSNA bulletin provides evidence to help us understand the oral health and wellbeing needs of people in Swindon
- A healthy mouth is fundamental to our overall health and wellbeing. It allows us to speak, smile, kiss, taste, chew, swallow and cry.
- Oral diseases affects all ages and gender, but the burden of diseases disproportionately affects older people, people living with learning disability, people living in poverty, people with lifestyle issues and those who are dependent on others for support.
- Significant improvements in oral health have been made however; many adults and children still suffer from oral diseases. It is costly to the NHS and the society.
- More than one in twelve (7.9%) three year olds in Swindon experience tooth decay in a survey in 2013. On the average, these children have 2.21 (CI: 0.44-3.97) teeth that were decayed, missing or filled.
- More than one in four (27.9%) five year olds in Swindon experience tooth decay in a survey in the 2014/15 school year. On average, these children have 2.8 (CI: 2.26-3.37) teeth that were decayed, missing or filled.
- More than one in four (28.1%) twelve year olds in Swindon experience tooth decay in a survey in the 2008/09 school year. On average, 2.18 (CI: 1.84-2.53) teeth that were decayed, missing or filled.
- Almost one in four (22%) Five year olds attending special support schools in Swindon experience tooth decay in a 2014 survey. On average, these children had 3.90 primary teeth that were obviously decayed, missing or filled. More than one in four (29%) of twelve year olds attending special support schools in Swindon experience tooth decay in the same survey. On average, these children had 2.37 permanent teeth that were obviously decayed, missing or filled. It is important to note that the sample size for this study is smaller than other DPHEP surveys and the differences are within the margins of error.
- Data on oral diseases is less readily available for adults. An estimated 60% of adults have gum disease with around 11% experiencing severe disease, based on data from a national survey in 2009.
- The prevalence and severity of tooth decay in Swindon is not significantly different to the rest of England.

- Swindon is served by 26 dental practices providing NHS dentistry. All areas of Swindon are accessible by road and public transport to NHS dentists.
- In 2011/12, Swindon had the second highest rate of admissions for tooth extractions in the South west. The rate of admissions has since fallen, similar to the rest of the Southwest.
- Oral cancer incidence is relatively low in Swindon: 7.8 cases of oral cancer per 100,000 (age standardized rate) 2010-2012. Oral cancers are however an increasing public health problem.<sup>14</sup> Incidence rates are rapidly rising and mortality is high and rising.

## Recommendations

This JSNA will help to develop an oral health improvement strategy for Swindon to:

- Develop an Oral health strategy for Swindon
- Tackle the causes of tooth decay in children and adults by reducing the consumption of sugar and alcohol and stopping the use of tobacco.
- Include oral health actions as the norm in strategies, programmes and services aimed at vulnerable adults and children, e.g. low sugar food policies, oral hygiene as part of individual care plans, signposting to NHS dental services
- Review present commissioning oral health interventions, using both universal and targeted approaches, to help people keep their mouths clean, use fluoride to strengthen their teeth, increase awareness of oral cancer and visit the dentist regularly. There is an opportunity to do this now as the contracts for oral health promotion is up for renewal in 2017/18.
- Address the historical high rates of hospital admission for tooth extraction in Swindon, to ensure that all admissions are appropriate.

## Introduction

This profile of oral health focuses on oral health and how oral diseases affect the population in Swindon Borough Council (SBC) area.

A healthy mouth is a vital part of a healthy body. Oral health has been defined as an ability to eat, speak and socialise without active disease, discomfort or embarrassment<sup>1</sup>. Having a healthy mouth allows us to speak, smile, kiss, taste, chew, swallow and cry<sup>2</sup>. These skills are fundamental to our daily living and are a key element of health and wellbeing.

Our ability to have a healthy mouth is affected by our experience of oral diseases. These include tooth decay gum disease and oral cancers. The most commonly found oral disease is tooth decay.

Oral diseases are largely preventable but are still very common. Significant improvements in oral health have been made however; many adults and children still suffer from pain and discomfort in their mouth. Some population groups are more likely to develop oral diseases, including older people, people living with learning disability<sup>3</sup>; people living in poverty, people with lifestyle issues and those who are dependent on others for support.

### ***Impact of Oral Diseases***

The impacts of oral diseases are significant: for individuals, families and society as a whole. At a society level the impact of oral diseases is substantial, particularly the cost of treatment. The NHS spends £3.4 billion per year on dental care (plus an estimated £2.3 billion is spent on privately funded dental care)<sup>4</sup>. Tooth decay was the most common reason for hospital admissions in children aged 5-9 years old in 2012/13, at a cost of almost £23 million<sup>5</sup>.

At the level of individuals and families it is well known that oral diseases cause tooth loss, pain, sensitivity, infection and, in extreme cases, a threat to life. What may be less well known however, is the impact of oral diseases on day to day life. These are summarised in figure 1.

**Figure 1 The range of impact that Oral Diseases have on activities of Daily Living<sup>6,7</sup>**

Impacts on children	Impacts on adults	Impacts on families
<ul style="list-style-type: none"> <li>•Reduced school readiness</li> <li>•Absence from school</li> <li>•Embarrassed to smile</li> <li>•Difficulty cleaning teeth</li> <li>•Difficulties eating</li> <li>•Difficulties socialising</li> <li>•Problems sleeping</li> <li>•Concentrating at school is difficult</li> </ul>	<ul style="list-style-type: none"> <li>•Problems eating</li> <li>•Difficulty smiling</li> <li>•Difficulties cleaning teeth</li> <li>•Problems relaxing and socialising (greater risk of social isolation)</li> <li>•Problems with speaking</li> <li>•Difficulties working</li> <li>•Older adults less able to consume a healthy diet</li> </ul>	<ul style="list-style-type: none"> <li>•Time off work</li> <li>•Feeling stressed, anxious or guilty</li> <li>•Sleep disrupted</li> <li>•Family activities interrupted</li> <li>•Financial difficulties</li> </ul>

It is common for children and their families to report impacts of oral diseases on daily life: 21% of parents of 5 year olds, 33% of parents of 8 year olds, 32% of parents of 12 year olds and 35% of parents of 15 year olds reported that the oral health problems of their child had a negative impact on family life over a three month period<sup>6</sup>. In the South West, 34% of adults with teeth report at least one oral health impact on their daily life.<sup>7</sup>

## Epidemiology of oral diseases in Swindon

### *Oral health survey of three-year-old children 2013<sup>8</sup>*

Public Health England (PHE) dental public health epidemiology programme (DPHEP) survey of three-year-old children, 2013 published 2015 shows estimates for disease prevalence and severity. It is reported at national, regional, PHE centre and upper and lower-tier local authority level. This is the first survey of 3 year olds in England.

Overall, of the three-year-old children in Swindon whose parents gave consent for their participation in this survey 7.9% (CI: 3.8-12.1) had experienced dental decay. On average, these children had 2.21 (CI: 0.44-3.97) teeth that were decayed, missing or filled (at age three most children have all 20 primary teeth). This is better than the national average for England, Overall, of the three-year-old children in England whose parents gave consent for their participation in this survey 11.7% (CI: 11.4-12.0) had experienced dental decay. On average, these children had 3.07 (CI: 3.01-3.14) teeth that were decayed, missing or filled (at age three most children have all 20 primary teeth). This is summarised in figures 2-4.

**Figure 2 Percentage of 3 year old Children with decayed, missing or filled teeth**

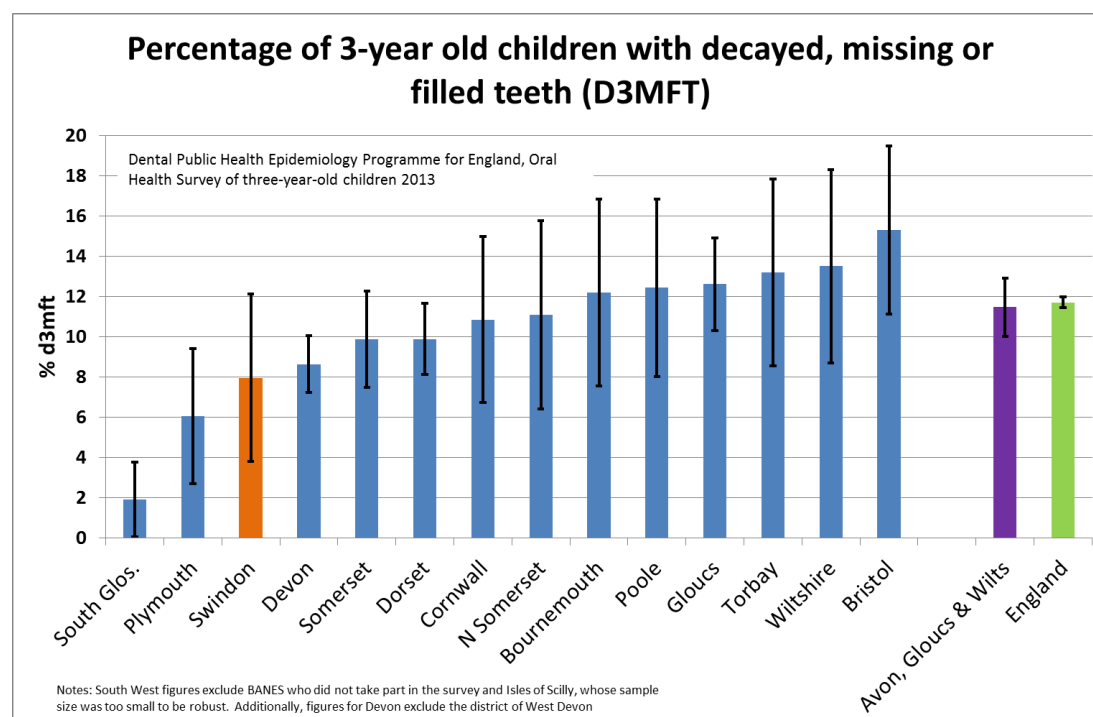
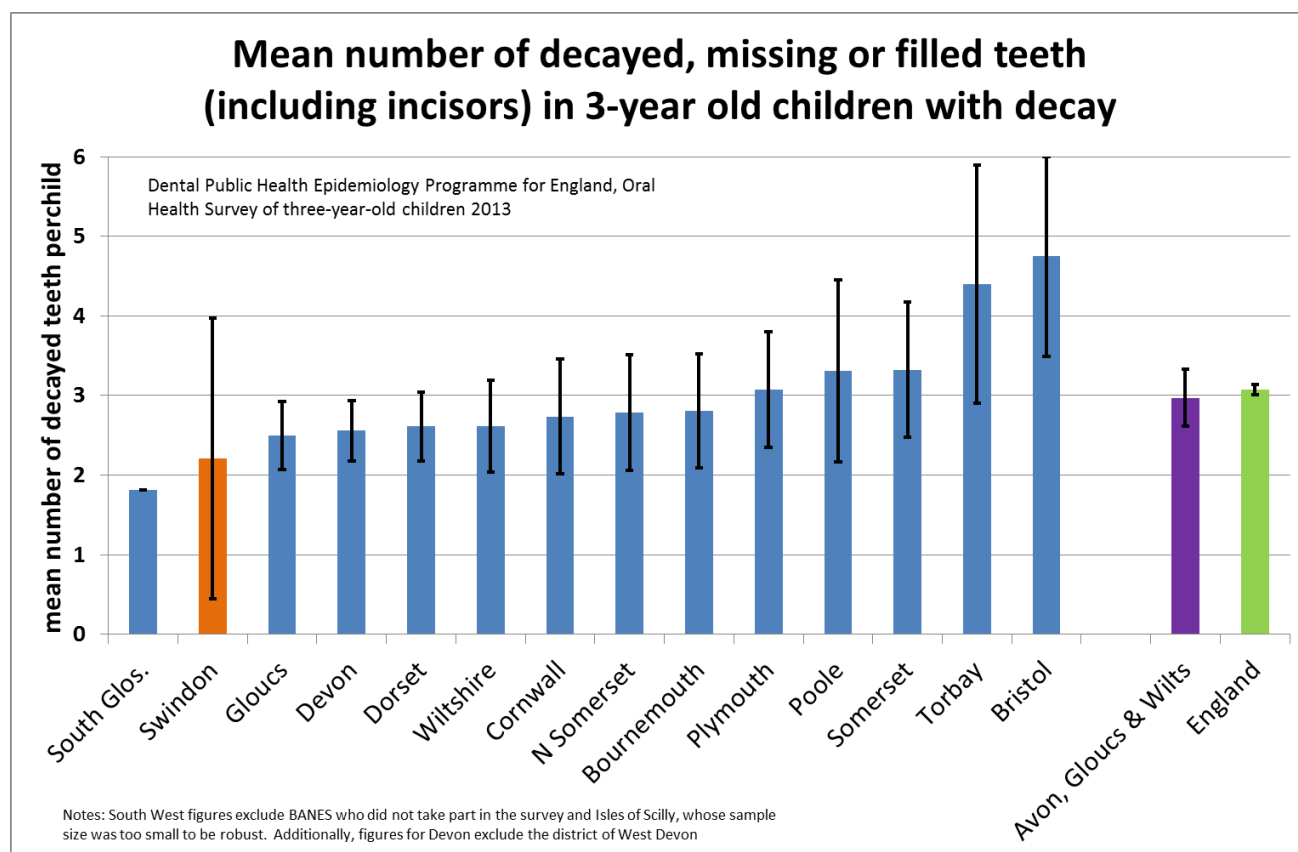


Figure 3 Mean number of decayed, missing or filled teeth in 3 year old with decay experience



### ***Oral health survey of five-year-old children 2014-15<sup>9</sup>***

Public Health England (PHE) dental public health epidemiology programme (DPHEP) survey of five-year-old children who attend mainstream, state funded schools across England during the 2014/15 academic year. This survey shows estimates for disease prevalence and severity. It is reported at national, regional, PHE centre and upper and lower-tier local authority level.

Overall, of the five-year-old children in Swindon whose parents gave consent for their participation in this survey 27.9% (CI: 22.2-33.5) had experienced dental decay. On average, these children had 2.8 (CI: 2.26-3.37) teeth that were decayed, missing or filled. This compares with the national average for England; overall, of the five-year-old children in England whose parents gave consent for their participation in this survey 24.7%(CI 24.48-24.98) had experienced dental decay. In the Southwest region, the figure is 21.5% (CI 20.64-22.23). On average, these children had 3.4 (CI 3.37-3.43) teeth that were decayed, missing or filled in England and 3.1(CI 2.97-3.18) in the Southwest. This is summarised in figures 5-7.

Figure 4 Percentage of 5 year old children with decayed, missing or filled teeth

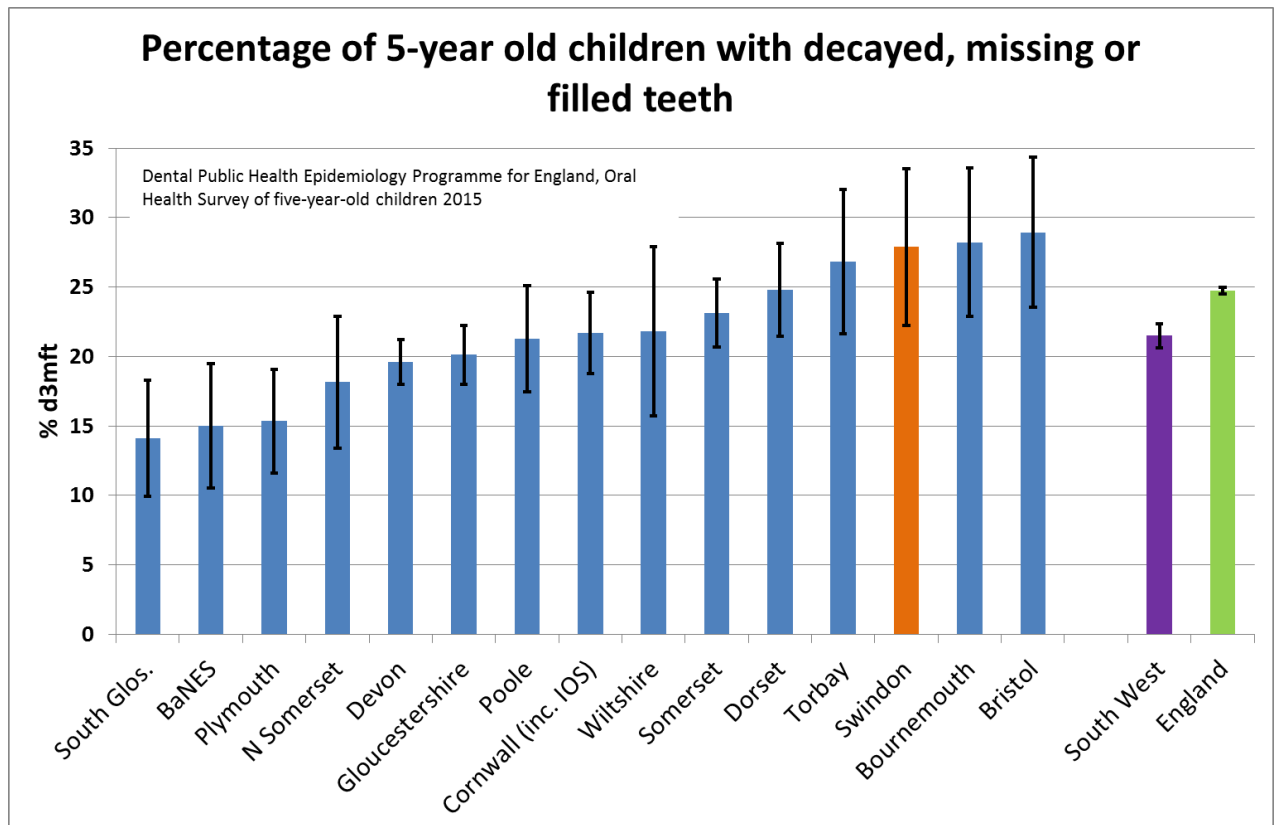
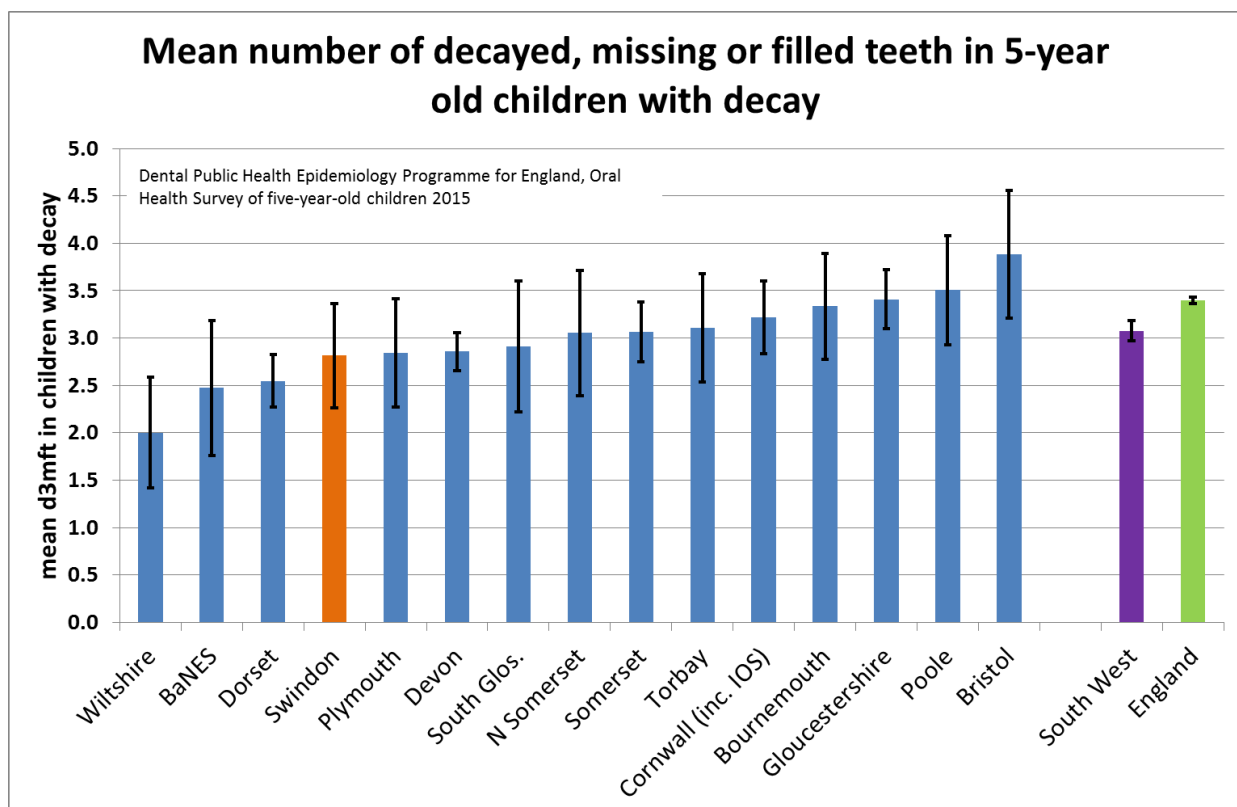


Figure 5 Mean number of decayed, missing or filled teeth in 5 year old children with decay experience

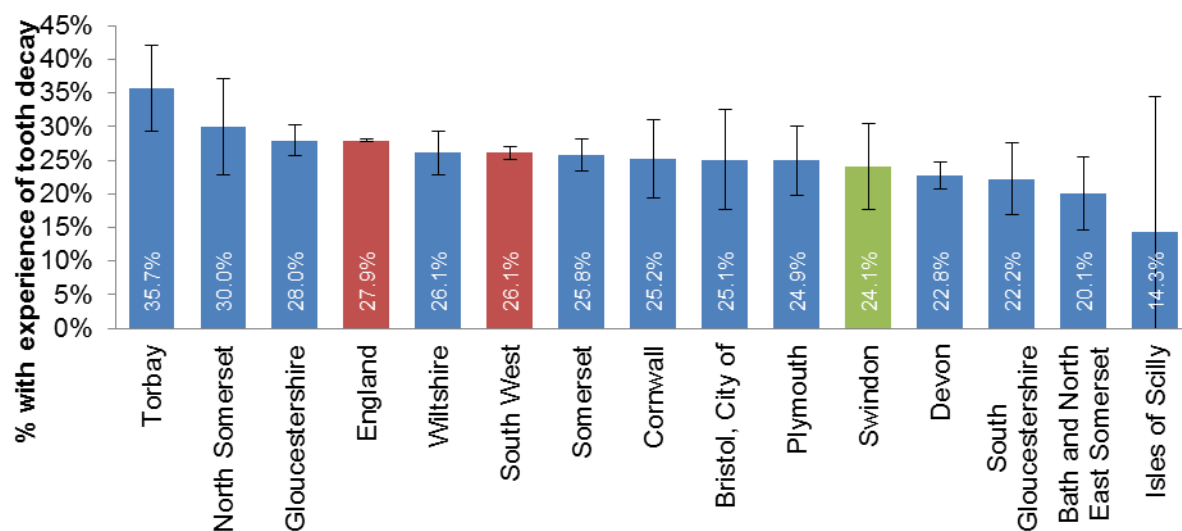


### ***Oral health survey of Five-year-old children 2011-12<sup>10</sup>***

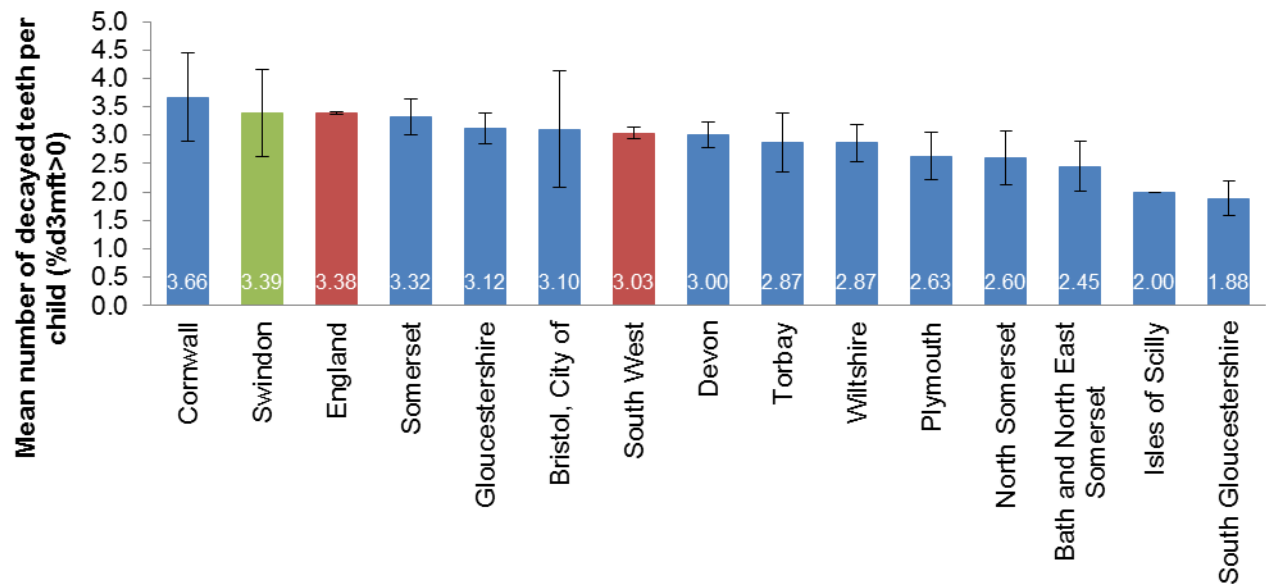
In the previous survey done in 2012, of the five-year-old children in Swindon whose parents gave consent for their participation in this survey 24.1% (CI: 17.7%-30.5%) had experienced dental decay (figure 8 and 9). On average, these children had = 3.39 (CI: 2.61-4.16) teeth that were decayed, missing or filled (figure 10). This compares with the national average for England; overall, of the five-year-old children in England whose parents gave consent for their participation in this survey 27.9% (CI 27.7-28.1) had experienced dental decay. In the Southwest region, the figure is 26.1% (CI 25.2-27). On average, these children had 3.38 (CI 3.36-3.41) teeth that were decayed, missing or filled in England and 3.03 (CI 2.93-3.14) in the Southwest. There is no significant difference in the findings of this survey when compared to the 2014/15.

This is summarised in figures 6 and 7.

**Figure 6 Comparison of prevalence of tooth decay in 5 year olds in Swindon to national Regional and Local prevalence in 2012 Source NDEP 2013**

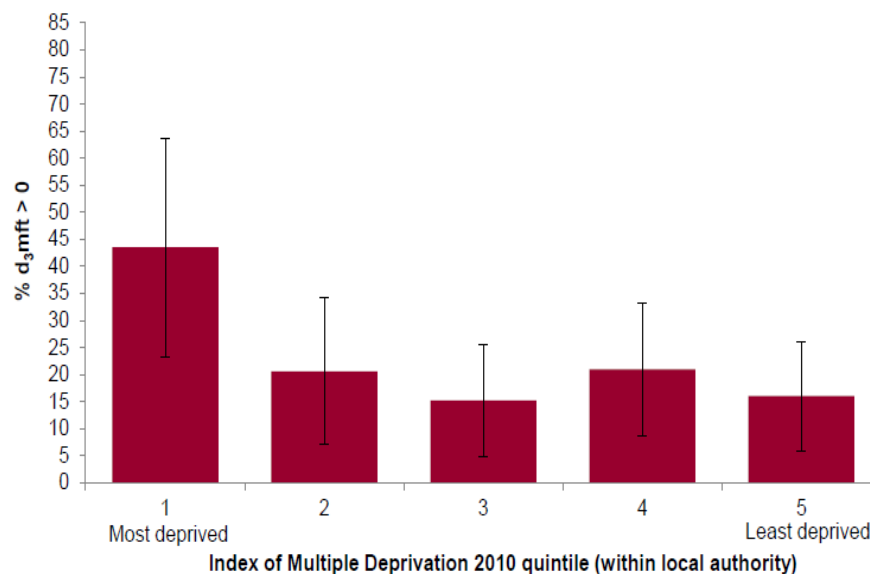


**Figure 7 Average Number of teeth affected by tooth decay in five year olds with decay experience (d3mft>0)**  
Source NDEP 2013



Tooth decay in children is worse for lower socio economic groups. In Swindon, children in the most deprived households are more likely to have decayed, missing or filled tooth (Figure 11).

**Figure 8 prevalence of tooth decay in five year olds by IMD 2010 quintiles for Swindon source: PHE Dental Health Profile Swindon Oct 2014**





### ***Oral health survey of twelve-year-old children 2008/09<sup>11</sup>***

Public Health England (PHE) Dental Public Health Epidemiology Programme (DPHEP) survey of Twelve-year-old children who attend mainstream, state funded schools across England during the 2008/09 academic year. This survey shows estimates for disease prevalence and severity. It is reported at national, regional, PCT and lower-tier local authority level.

Overall, of the twelve-year-old children in Swindon whose parents gave consent for their participation in this survey 28.1% (CI: 22.6%-33.6%) had experienced dental decay. On average, these children had 2.18 (CI: 1.84-2.53) teeth that were decayed, missing or filled. This is better than the national average for England. Overall, of the three-year-old children in England whose parents gave consent for their participation in this survey 33.4% (CI: 33.1-33.7) had experienced dental decay. On average, these children had 2.21 (CI: 2.19-2.23) teeth that were decayed, missing or filled. This is summarised in figures 9 and 10.

**Figure 9 Percentage of 12 year old children with decayed, missing or filled teeth**

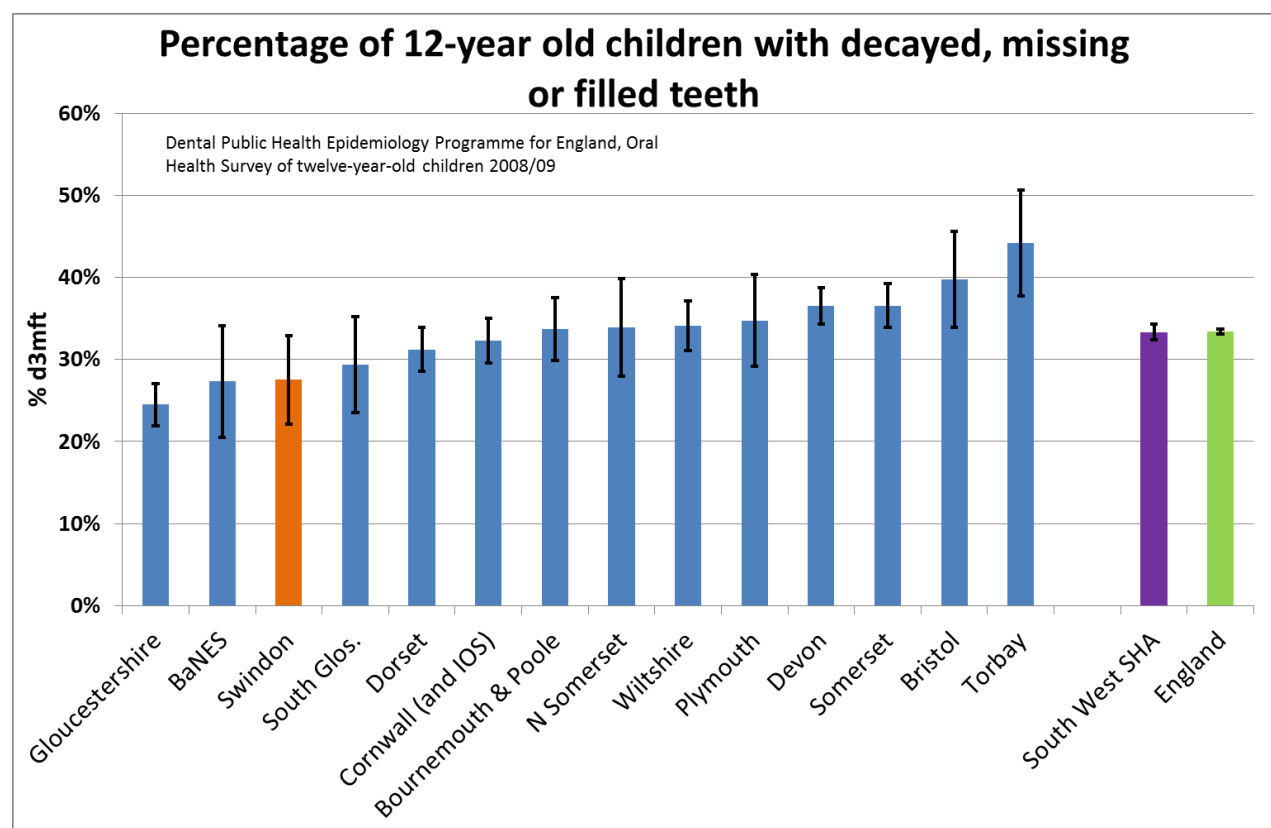
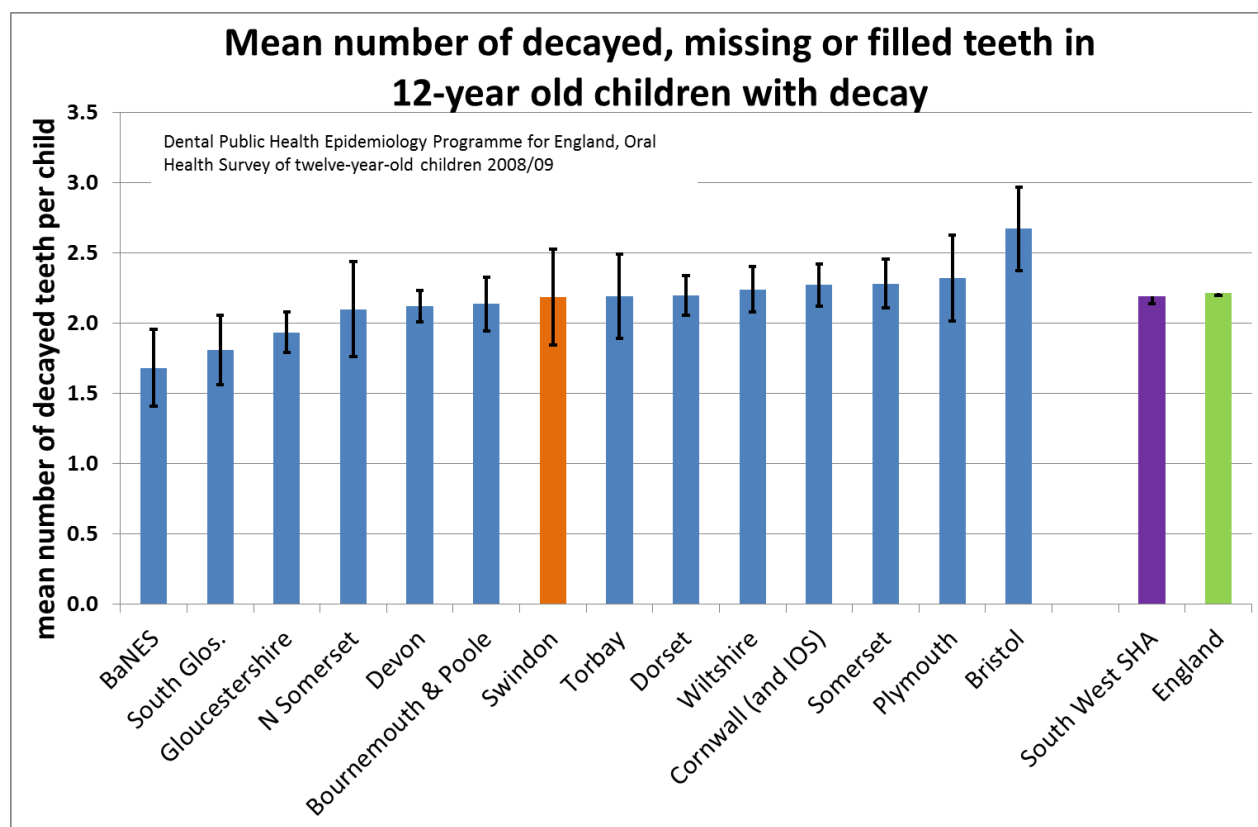


Figure 10 Mean number of decayed, missed or filled teeth in 12 year olds with decay experience



### ***Oral health in children attending special needs schools <sup>12</sup>***

Public Health England (PHE) Dental Public Health epidemiology programme (DPHEP) conducted a survey of five and twelve-year-old children attending special support schools in 2014. The number of people who consented to this study and subsequent examination was small and this affects the inference from this study.

Overall, of the five-year-old children attending special needs schools in England whose parents gave consent for their participation in this survey, 22% had experienced dental decay. On average, these children had 3.90 primary teeth that were obviously decayed, missing or filled. The average number of decayed, missing or filled teeth (d3mft) in the whole sample (including the 78% who were free of obvious decay) was 0.88.

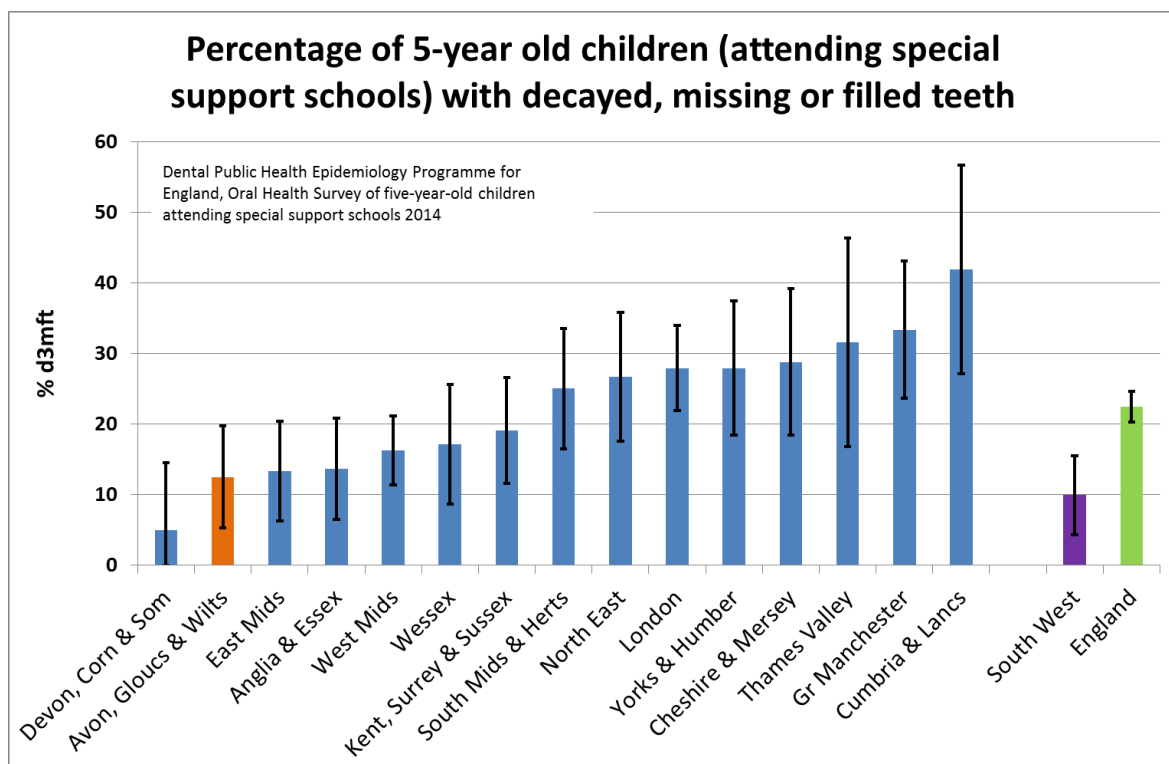
For this age group, overall severity and prevalence in children attending special needs schools were slightly lower than for children attending mainstream schools, but those who have experience of decay have more teeth affected on average. This age group were twice as likely to have had one or more teeth extracted than their mainstream-educated peers.

Among the 12-year-old children in England attending special needs schools whose parents gave consent for their participation in this survey, 29% had experienced dental decay. On average, these children had 2.37 permanent teeth that were obviously decayed, missing or filled. The average

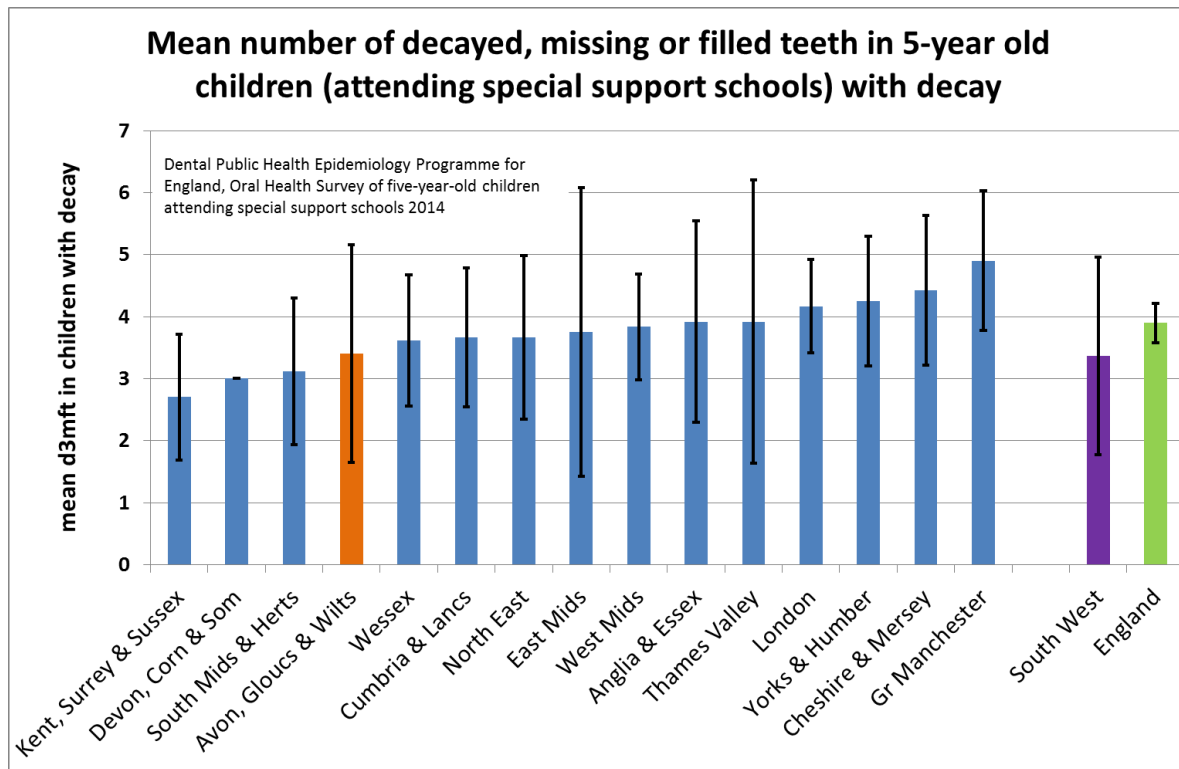
number of decayed, missing or filled teeth (D3MFT) in the whole sample (including the 71% who were decay free) was 0.69.

For 12-year-old children attending special needs schools, again, overall severity and prevalence was lower than for children attending mainstream schools but, for those who had decay it was more severe with more teeth being affected on average. This is summarised in figures 11-16. The sample size for this study is smaller than other DPHEP surveys and the differences are within the margins of error.

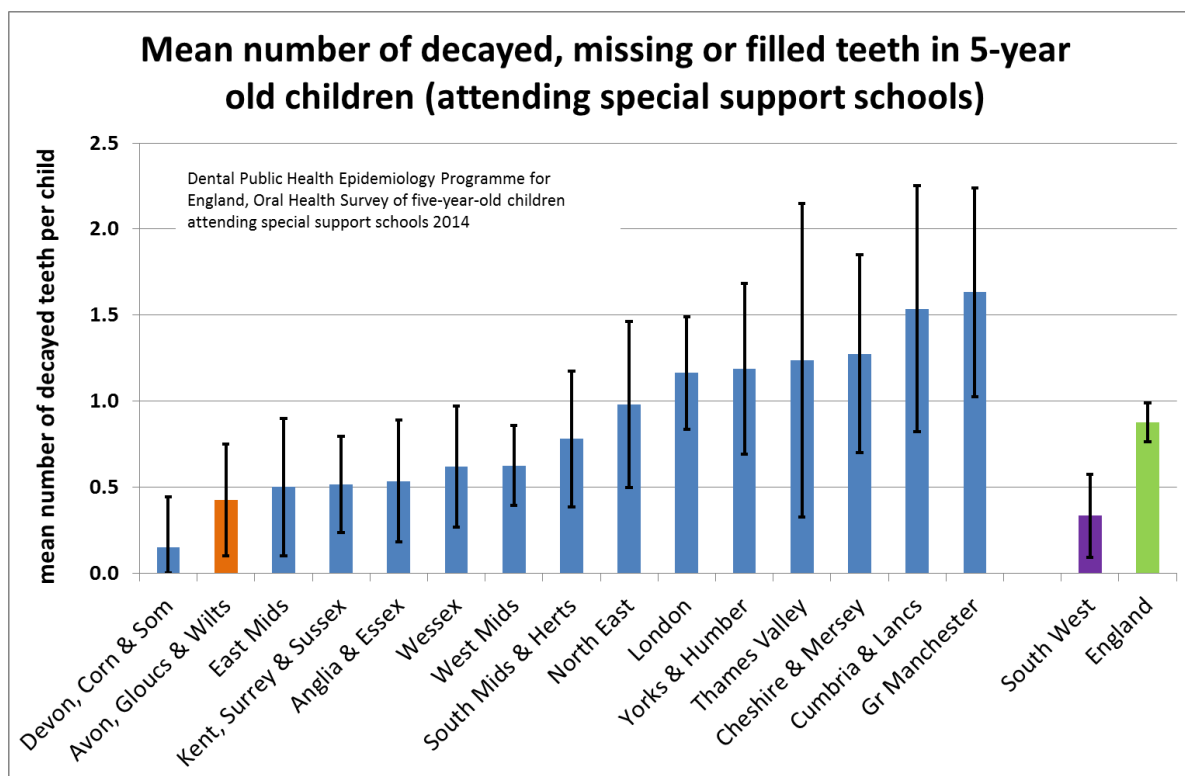
**Figure 11 percentages of 5 year olds in special support schools with decayed, missing or filled teeth**



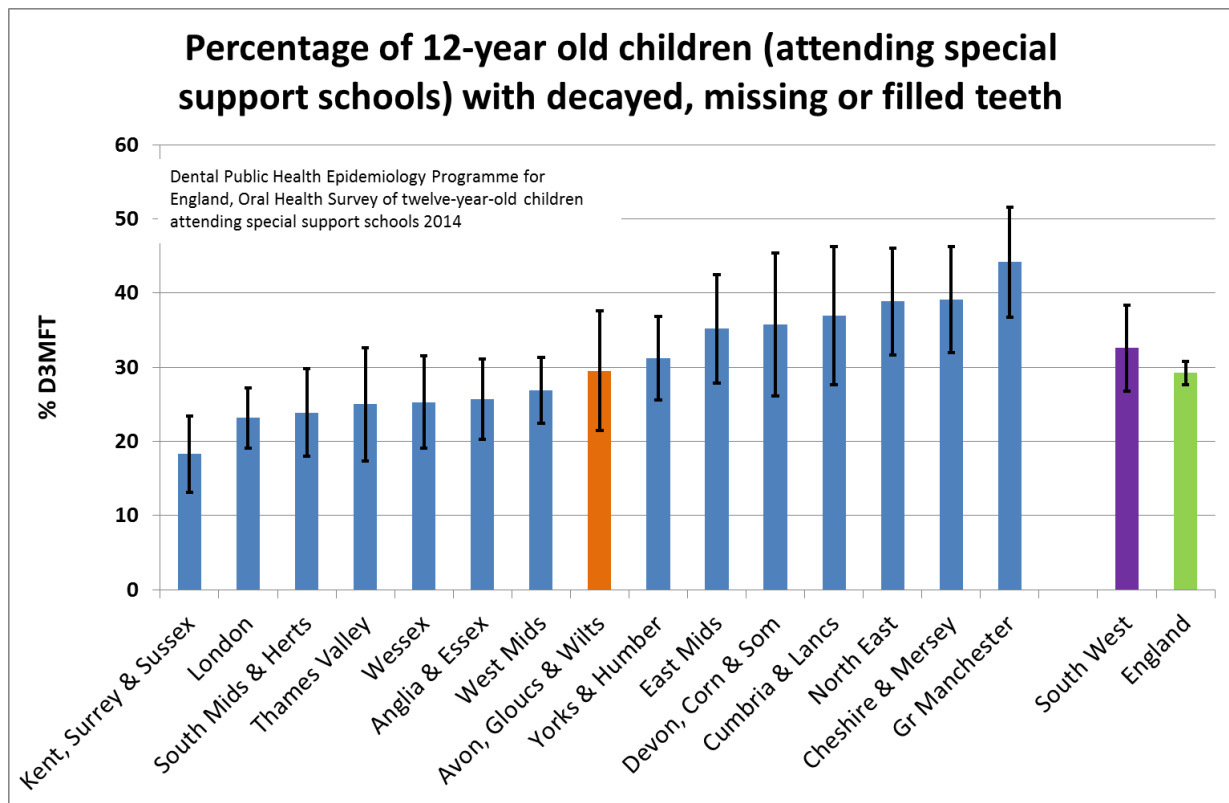
**Figure 12 Mean number of decayed, missing or filled teeth in 5 year olds in special support schools with decay experience**



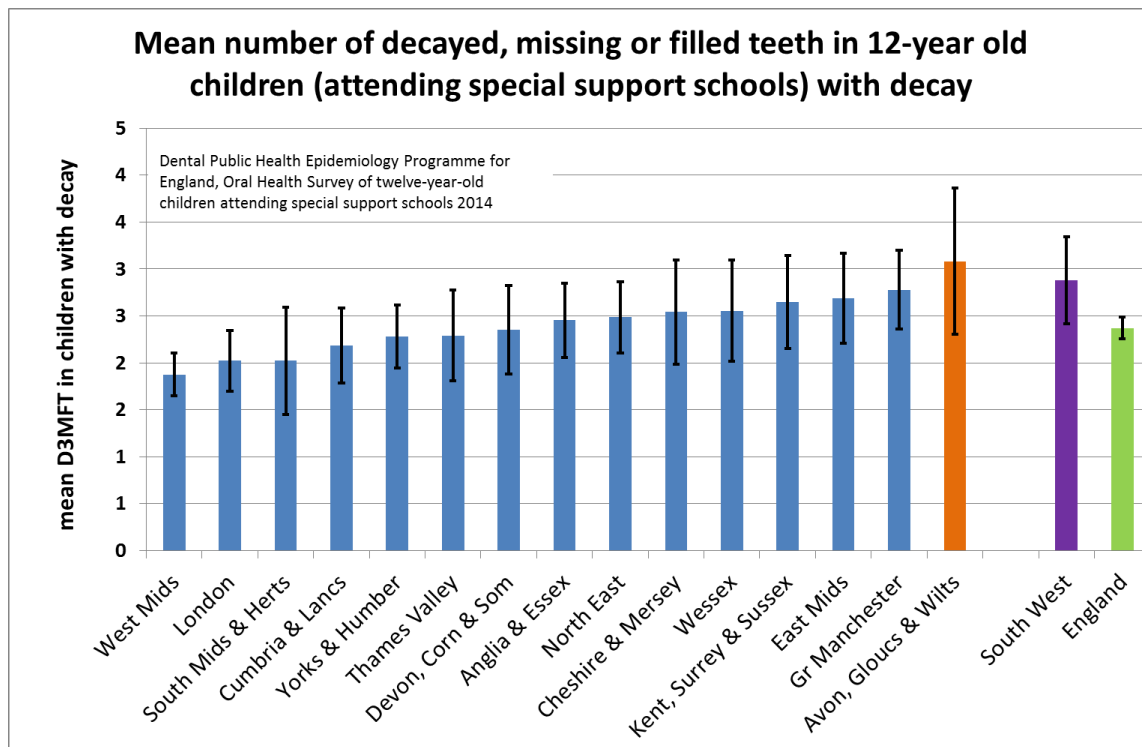
**Figure 13 mean number of decayed, missing or filled teeth in 5 year olds in special support schools**



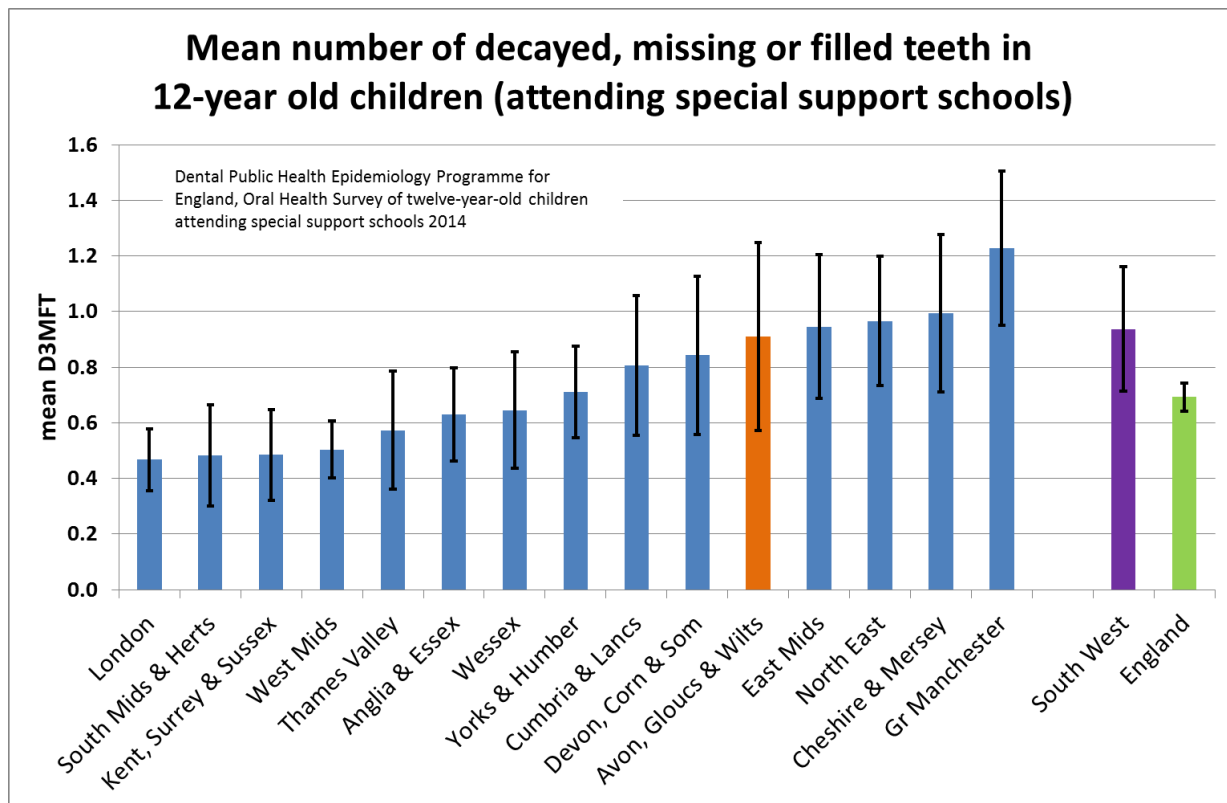
**Figure 14 percentage of 12 year olds in special support schools with decayed, missing or filled teeth**



**Figure 15 Mean number of decayed, missing or filled teeth in 12 year olds attending special support schools with decayed experience**



**Figure 16 Mean number of decayed, missing or filled teeth in 12 year olds in special support schools**



Other groups of children who are most at risk of oral diseases are summarised in table1.

**Table 1 Groups of children at the highest risk of oral disease**

Group	Definition	prevalence of risk factor in Swindon	prevalence of risk factor in England
Children living in areas of material or social deprivation	% of children in low income families (children living in families in receipt of out of work benefits or tax credits where their reported income is < 60% median income) for u-16s only	15.6% (6,640 children) 2013	18.6%  South West = 14.8%  Swindon significantly lower than England but significantly higher than South West.
Children who are offenders	Rate of 10-17 year olds receiving their first reprimand, warning or conviction per 100,000 population	581 per 100,000 (115 children) 2014	409 per 100,000  South West = 428 per 100,000  Swindon significantly higher than both.

## Appendix 1

Children with a physical or learning disability	2011 Census question: Are you day to day activities limited because of a health problem or disability which has lasted or is expected to last, at least 12 months?	0-15 limited a lot or a little = 3.4% (1,414 children)  16-24 limited a lot or a little = 4.7% (1,071 young people)  2011	Swindon is slightly lower than the England average for 0-15s and similar to England for 16-24s
Looked after Children	The definition of looked-after children (children in care) is found in the Children Act 1989. A child is looked after by a local authority if a court has granted a care order to place a child in care, or a council's children's services department has cared for the child for more than 24 hours	52 per 10,000 (250 children)  2015	60 per 10,000  South West = 52 per 10,000

### ***Oral diseases in adults***

There are no routinely collected local data collected on oral health in adults. There are however, decennial national surveys of oral health in adults which report data at a regional level <sup>7</sup>.

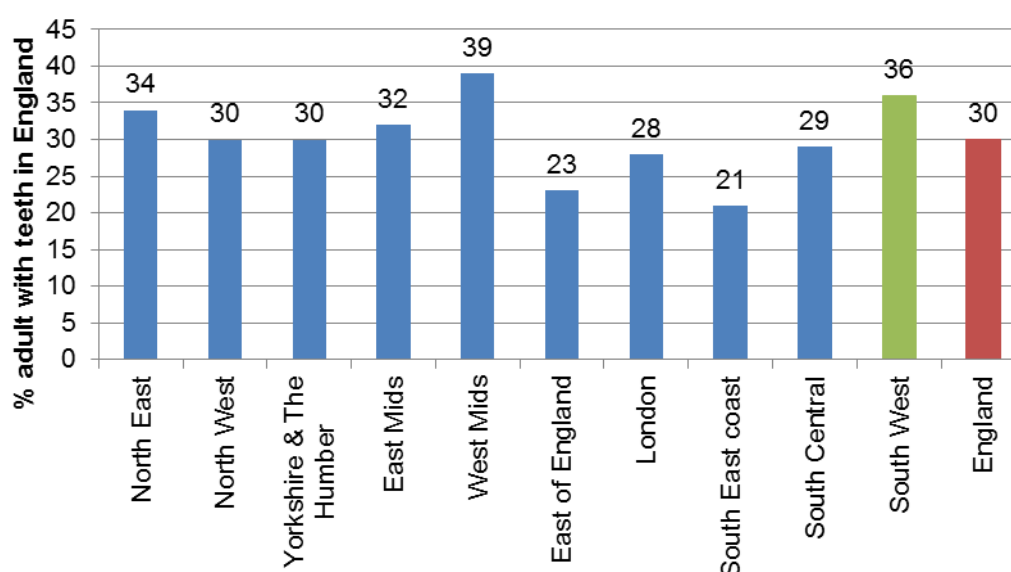
The three main oral diseases that affect adults are dental decay, gum disease and oral cancers. Data on oral health in adults is not collected locally. This means that oral health and wellbeing needs for Swindon are estimated using South West data from national oral health surveys. The most recent survey was in 2009<sup>7</sup>. There is an ongoing survey of the dental health of older people (>65years) with mild dependency who live in “extra care” housing establishments.

While oral health has improved overall in recent decades, it is not all good news. Inequalities in oral health are consistently seen with oral diseases increasingly concentrated in vulnerable and socially disadvantaged groups, such as frail older people or those from lower socioeconomic groups (figure 17).

**Figure 17: Groups of adults at highest risk of oral disease**

### Tooth decay

In the South West 36% of adults have an average of 3-4 decayed teeth (figure 18). The overall prevalence of tooth decay in adults in England has fallen from 46% in 1998 to 30% in 2009. While the prevalence of decay has fallen over time, the severity is essentially unchanged.

**Figure 18: Proportion of adults with any decayed teeth (%) by region (Strategic Health Authority), 2009**

Source: Adult Dental Health Survey 2009

### Inequalities in tooth decay

Tooth decay is strongly associated with socioeconomic deprivation. People from more deprived groups suffer from more severe decay, more urgent dental problems and are more likely to have no teeth at all. Adults who do not attend a dentist regularly also have fewer teeth and more decay<sup>7</sup>.

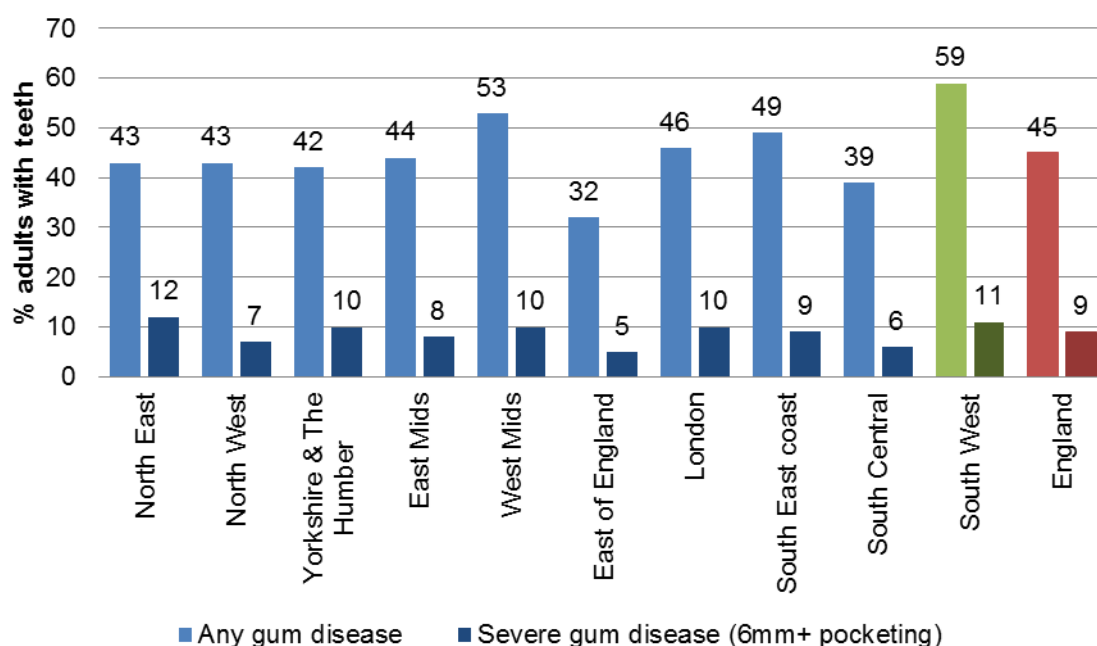


Tooth decay varies by age and prevalence is highest in adults aged 25-34 and 75 years and over. People from black and minority ethnic groups tend to experience tooth decay more frequently however, the relationship is complex and likely to be confounded by socio-economic status.<sup>12</sup>

### ***Gum disease***

Gum disease covers a spectrum of conditions, from swollen and bleeding gums to extensive bone loss leading to loss of teeth. In the South West, 59% of the population experienced gum disease with 11% experiencing severe disease (compared to 45% and 9% adults in England respectively)<sup>7</sup> (figure 23).

**Figure 19 Periodontal condition of adults with teeth (%) by Strategic Health Authority, 2009.**



Source: Adult Dental Health Survey, 2009

### ***Inequalities in gum disease***

Gum disease is cumulative so prevalence increases with age. Adults from more socio-economically deprived groups are more likely to experience gum disease, as are adults of Asian origin.<sup>9</sup>

### ***Oral cancer***

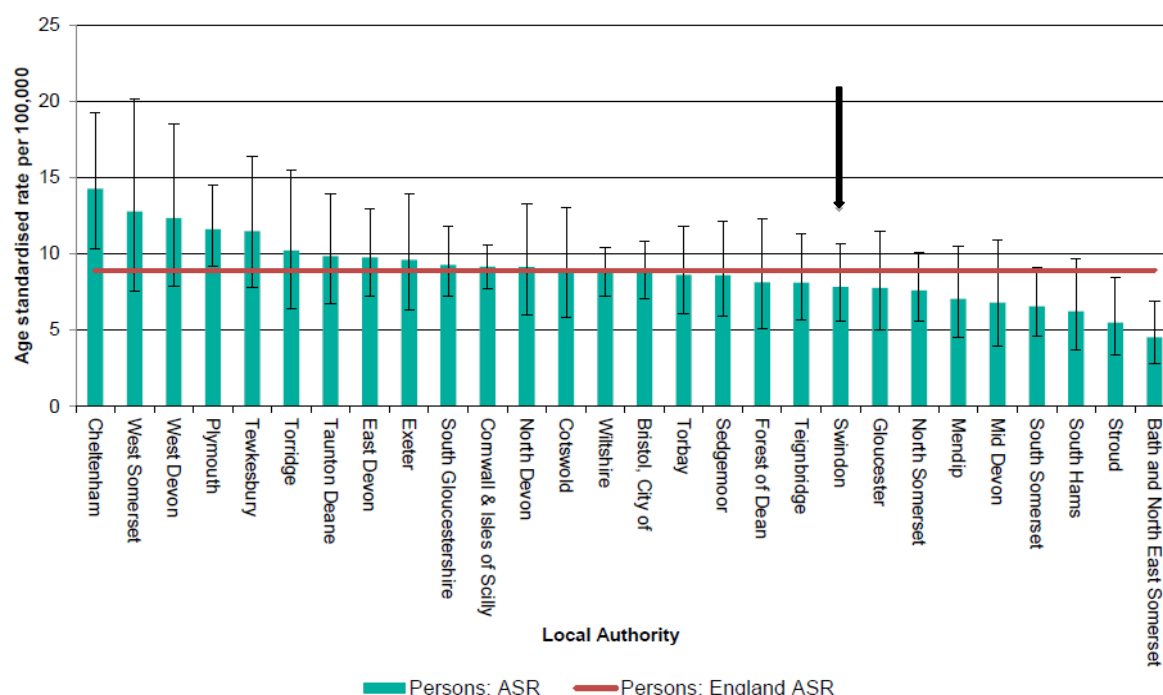
Oral cancer (a term used to encompass a number of different types of cancer of the mouth) makes up 2% of all cancer cases and 1% of all cancer deaths in the UK. Around 2,100 people died of oral cancer in 2012 in the UK, equivalent to around six people every day.<sup>15</sup>

Oral cancer incidence is relatively low, however; this is an increasing public health problem.<sup>1416</sup> No other cancer site has shown such a rapid rise in incidence in the past quarter of a century.<sup>13</sup> Mortality rates have increased by around 10% in the last decade.<sup>14</sup> Diagnosis of oral cancer is usually

late because people can ignore symptoms: public awareness of oral cancer is low. Most sufferers die in first 2-3 years after diagnosis (there is around a 50% five year survival).<sup>15</sup>

In Swindon there were 7.8 cases of oral cancer per 100,000 (age standardised rate) 2010-2012 (figure 24). There are no statistically significant differences in either oral cancer incidence or mortality between Swindon and England.

**Figure 20: Oral cancer incidence age standardised rates for Local Authorities in the South West, 2010-2012 (NCRS ONS)**



### Inequalities in oral cancer

Oral cancer is strongly related to socio-economic deprivation, with the highest rates occurring in the most disadvantaged groups.<sup>15</sup> This pattern is independent of lifestyle behaviours.<sup>16</sup>

Oral cancer is more common in older adults (60+) <sup>15</sup>, although numbers are increasing in younger adults. <sup>16</sup> Oral cancer is more common in men due to a higher prevalence of tobacco chewing, excessive alcohol intake and smoking in men.<sup>17</sup> Oral cancer is more common in people from some black and minority ethnic groups that have a higher prevalence of chewing tobacco or betel quid, such as people of Bangladeshi origin.<sup>12</sup>

## Services for oral health in Swindon

### ***Preventive services***

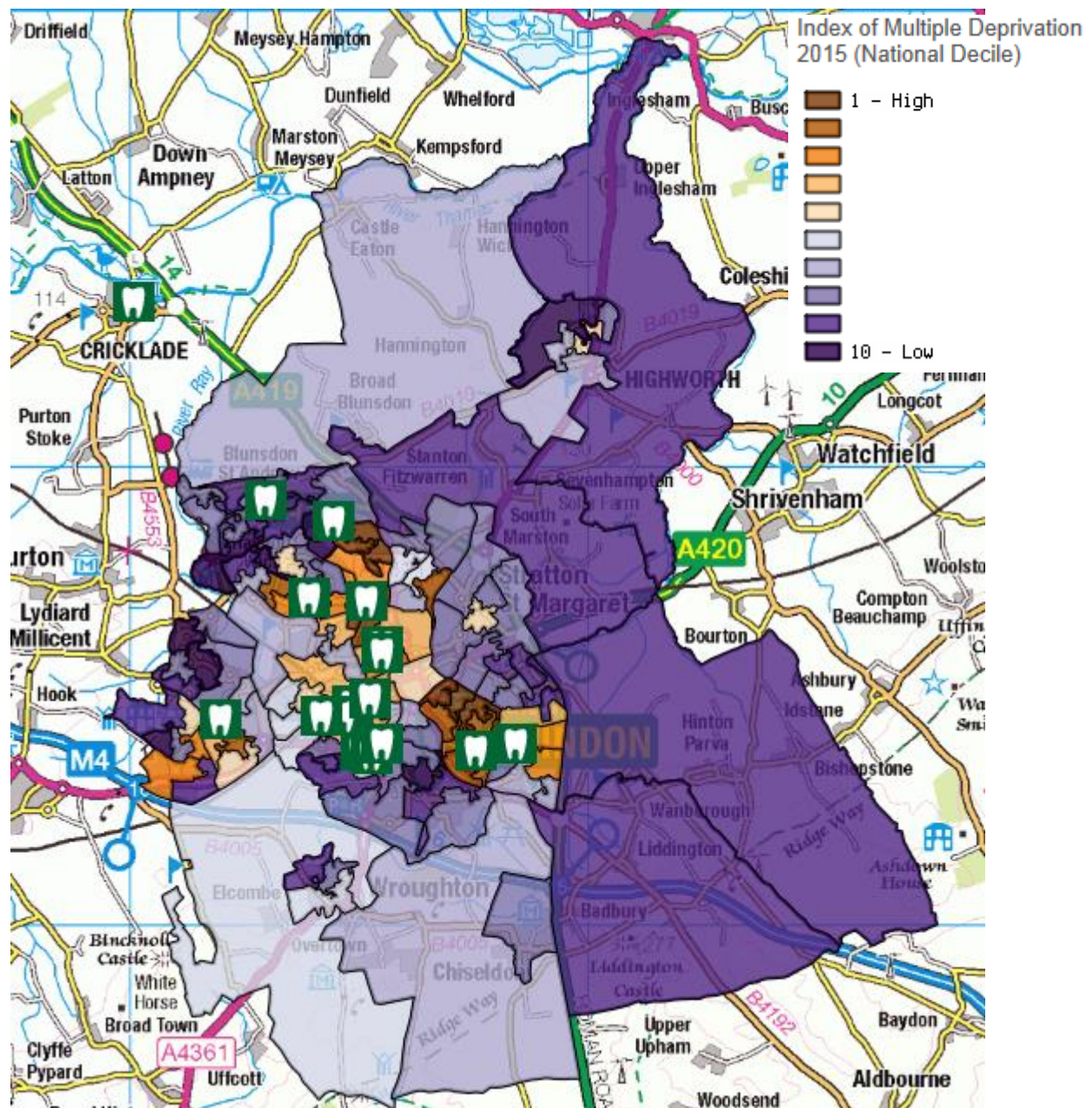
Swindon Public Health team commission the Great Western Hospital Foundation Trust Dental Service to provide oral health promotion to children in Swindon. This service provides oral health promotion advice and training to staff and pupils schools, nurseries and to health care professionals.

In addition, oral health promotion is part of school health services and is an integral part of the healthy weight strategy.

### ***Primary Care***

Swindon is well served by a network of dental practices providing NHS dentistry to the residents of Swindon. NHSE is the commissioner of primary care dentistry in Swindon and it commissions 26 dental practices to provide NHS dental services in Swindon. Areas of high Index of Multiple Deprivation (high deprivation) are well served by NHS Dentists. All areas of Swindon are easily accessible by road and public transport to NHS dentists (figure 21). A recent report from Healthwatch Swindon shows that there is no shortage of NHS dentistry in Swindon<sup>18</sup>

Figure 21 Map showing the location of primary care dentists in Swindon by IMD 2015

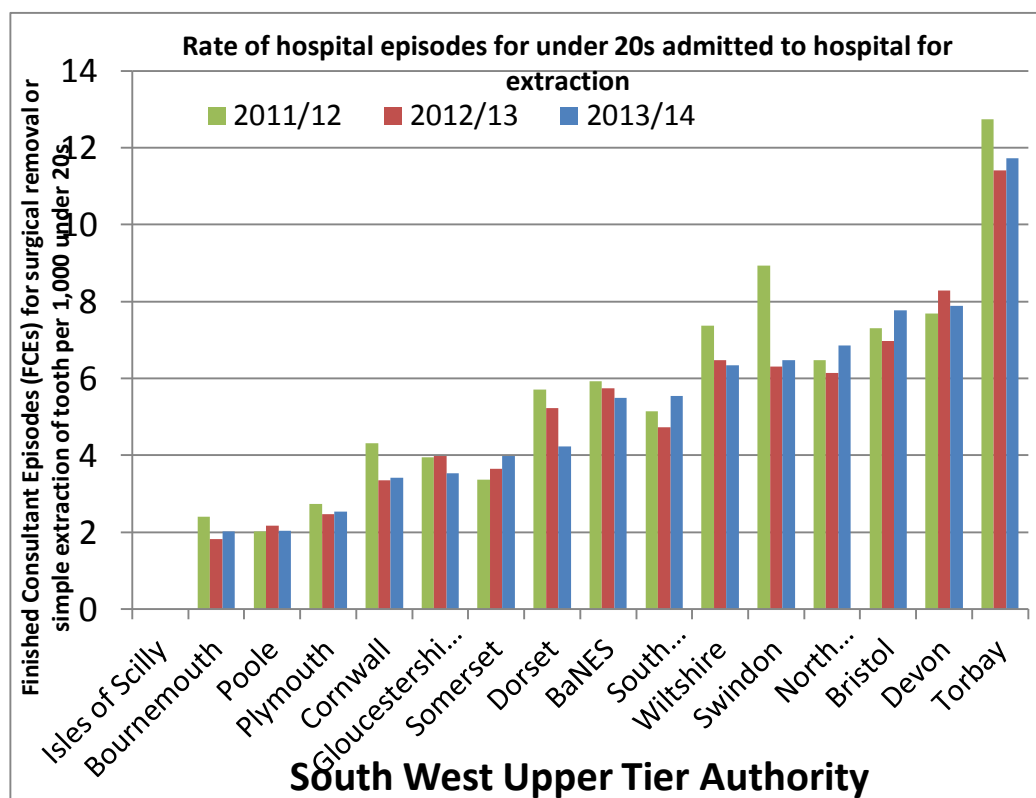


Swindon iShare GIS tool: <http://sbcvpwmism04/iShareGIS5.4.Web/iShareGIS.aspx#> (accessed 16/3/16)

### ***Acute/ secondary Care<sup>19</sup>***

The Great Western Hospitals Foundation Trust is the main provider of acute care for dentistry for Swindon residents. In 2011/12, Swindon had second highest rate of admissions for tooth extraction in the South west in children. Anecdotal evidence suggested this high rate of admissions for tooth extractions may not be entirely appropriate. NHS Swindon, as part of its QIPP programme investigated this, and developed criteria based access policy for tooth extraction in secondary care in 2012. Admission rates in subsequent years have since fallen to similar rates for the rest of the south west.

Figure 26 Rate of hospital episodes for under 20s admitted to hospital for Tooth extraction in the Southwest



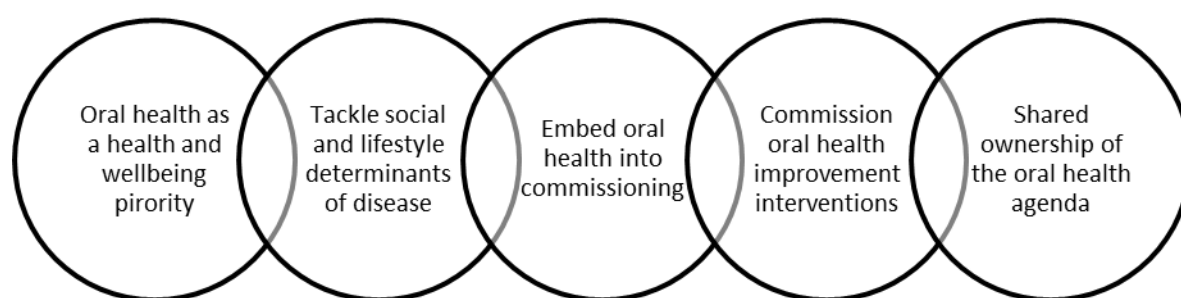
## Interventions to improve oral health

It is increasingly acknowledged that investment in prevention promotes health and wellbeing and is preferable to treating diseases. Local authorities are statutorily required to commission oral health promotion surveys and to ensure the provision of a local health promotion programme to the extent which is appropriate to their local area.<sup>20</sup>

While the causes of oral diseases are well understood, tackling them is complex. A whole system approach is needed that combines universal with targeted action. Targeted action needs to be focused on those groups who are more likely to experience poor oral health and less likely to access routine NHS dentistry, e.g. early years children and vulnerable adults.

### Improving oral health in Swindon

Improving oral health will involve a number of elements, as follows (summarised in figure 27):

**Figure 27: Actions to improve oral health and reduce oral health inequalities**

### **Oral health as a health and wellbeing priority**

In the traditional medical approach, the mouth is seen as separate to the rest of the body. This is now known to be an outdated approach however, oral health is often forgotten when health improvement activities are designed, either at an individual or a population level. Inclusion of oral health in organisational priorities would help ensure that oral health is not forgotten by commissioners and providers. This has been included in the oral health Joint Strategic Needs Assessments (JSNA), Health and Wellbeing Strategies, Children's Poverty Commission Strategies, Children and Young People's JSNA.

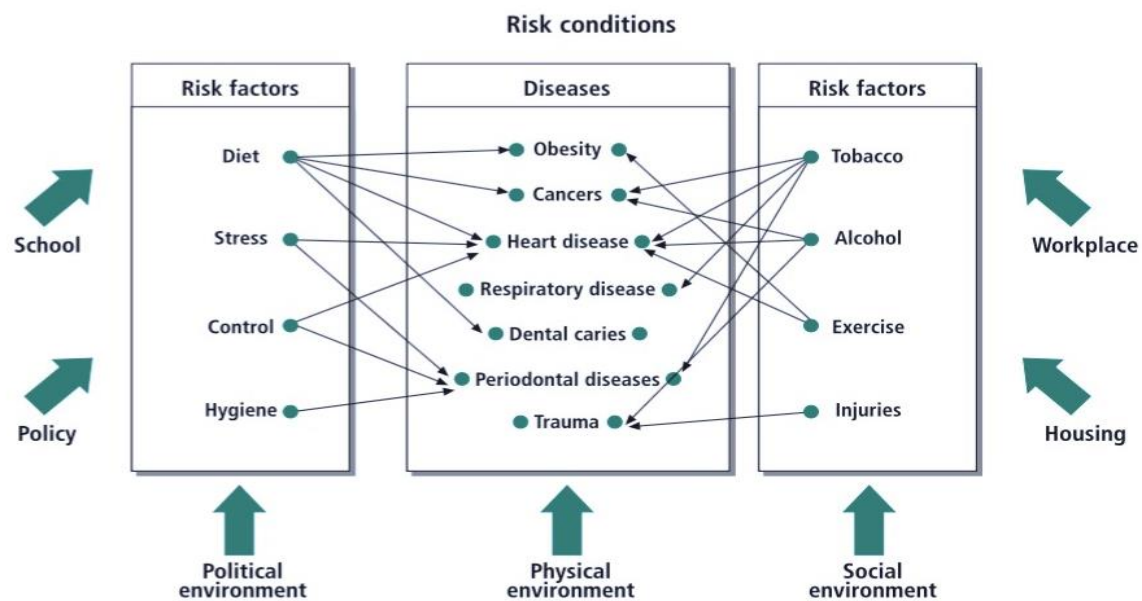
### **Tackling social and lifestyle determinants of disease**

The Common Risk Factor Approach<sup>21</sup> advocates tackling the causes, and the causes of the causes, of oral diseases alongside those of other common chronic diseases. The lifestyle factors that affect oral diseases are largely well understood and the underlying influence of the wider social environment on oral health inequalities is now recognised.<sup>22</sup>

Actions that (a) improve the circumstances in which people live and work, particularly using the principle of proportionate universalism and (b) reduce the lifestyle factors that contribute to oral diseases alongside other chronic disease, such as tobacco smoking, poor diet, high alcohol consumption, injuries (figure 28), will ultimately lead to improvements in oral health and a reduction of oral health inequalities. Reductions in tobacco use, for example, will reduce the risk of both gum disease and oral cancers. Reductions in tobacco use, for example, will reduce the risk of both gum disease and oral cancers.



Figure 28 The Common Risk Factor Approach to improving oral health



This means that many of Swindon's interventions on shared risk factors (social and lifestyle determinants) will improve oral health by reducing the overall risk of disease. A wide number of partners can contribute to improving the oral health by delivering on the following priorities:

1. Improving the environments in which people live and work
2. Making healthy choices easier with regard to healthy, sugar free foods and drinks
3. Supporting reductions in alcohol misuse and tobacco use

Actions to address the common risk factors for oral and other chronic diseases will contribute to oral health improvement regardless of whether they are nominally focused on oral health issues. There is a limit to this approach however: in many cases, oral health could be further improved by adding in specific oral health elements to a programme, e.g. training staff in oral health, supporting vulnerable people to have a clean mouth and supporting people to visit a dentist for urgent and routine care.

## Embed oral health into commissioning

Oral health improvement services have traditionally been separate from generic health improvement services. This distinction is artificial and outdated as there is strong evidence to suggest that oral health is integral to general health. In older people, for example, there is a clear and consistent relationship between retention of natural teeth, a healthy diet and good nutrition.<sup>23</sup>

Embedding oral health into the commissioning of services for children and vulnerable adults would support the promotion of oral health by services and settings that work with priority population groups. In many cases there is no need to commission separate interventions, instead oral health elements, such as the requirement for staff to be trained in oral health, can be introduced into other policies, strategies and programmes, for example:

- Service specifications, including standards and KPIs, for the commissioning of services that relate to young children and vulnerable adults, e.g. Healthy Child Programme 0-19 year olds and social care for older adults
- Strategies, such as those for healthy eating, include oral health considerations such as minimising the frequency of sugar intake as well as quantity of sugar consumed

### Commission specific oral health improving interventions

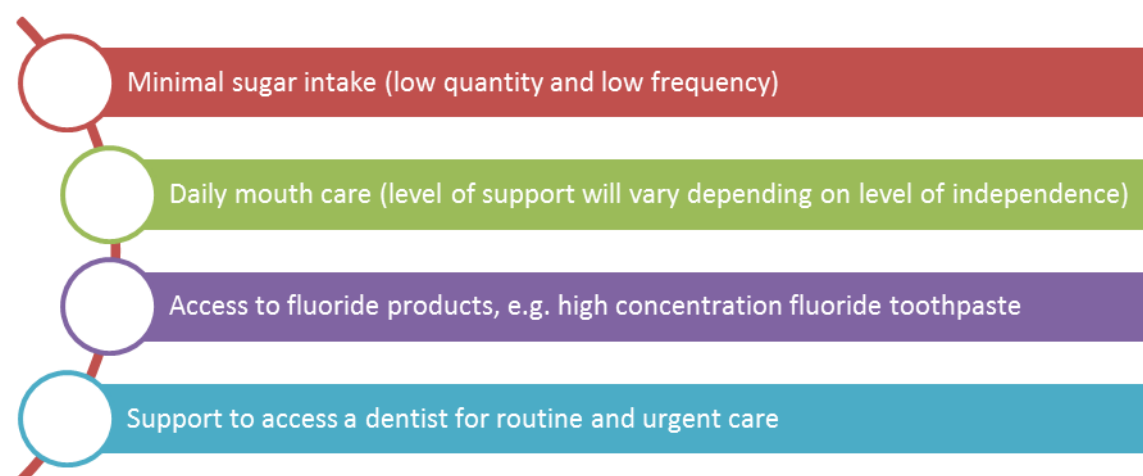
Oral health is integral to general health and quality of life but is easily forgotten when integrated health improvement services are being developed.<sup>24</sup>

While many actions that improve oral health do not require specific oral health commissioning, there are certain elements of oral health improvement that cannot be bypassed. Vulnerable adults and children require four key interventions to improve or maintain their oral health, as outlined in figure 29.<sup>25</sup>

Commissioned services need to promote these factors for individuals, particularly those who are most vulnerable. Anecdotal evidence suggests that, where oral health is completely integrated into general health improvement activities, these elements are easily forgotten, particularly those that relate to mouth care, fluoride delivery and access to dental treatment. For example, carers often receive no training in oral health meaning that these factors get forgotten when managing personal care, e.g. for vulnerable older people.

The requirement for providers to deliver on oral health responsibilities can be embedded in services specifications, but there is a need for oral health services to support providers to deliver against these oral health responsibilities. For example, where a service specification requires staff to be trained in oral health, a service is needed that can deliver staff training in oral health.

**Figure 29: Actions needed, at an individual level, to improve or maintain their oral health**



There are a number of oral health improvement interventions which local authorities can choose to commission, depending on population need and available resources. National guidance documents, from NICE and Public Health England, make clear recommendations about which interventions are supported by the evidence base. Training in oral health for health and social care staff working with



vulnerable adults and children, for example, is recommended by NICE guidance<sup>26</sup> and the PHE toolkit.<sup>27</sup> Training can be supplemented by other programmes, such as fluoride toothpaste or varnish initiatives. The evidence around the effectiveness of topical fluoride in preventing decay is firmly established based on a sizeable body of evidence (Cochrane systematic reviews).<sup>28,29</sup> Fluoride can be delivered in a community setting, in a variety of ways, to strengthen teeth, e.g. free toothpaste to troubled families.

## Shared ownership of the oral health agenda

The shift of commissioning of oral health improvement responsibilities from the NHS to local authorities in 2013 has connected oral health services to wider health and social care services for the first time.

Local authorities now have a remit to work across sectors, particularly with NHS England in first instance, to influence decision making and strategically plan the best way to meet population needs in relation to oral disease prevention and treatment services. This is supported by NICE guidance PH55 Error! Bookmark not defined. which suggests that development of an oral health strategy is the responsibility of a number of stakeholder including local authorities, NHS England, local Healthwatch, amongst others.

Supplemental to this is the opportunity that local authorities now have to gather vital information on where population needs are not being met. Identifying and communicating gaps in service provision, e.g. where vulnerable adults are unable to access dental care could have a powerful influence on the focus of dental commissioning strategies. This role was recently highlighted by NICE guidance on oral health in care homes which includes a recommendation for local authorities to 'ensure local oral health services address the identified needs of people in care homes, including their need for treatment'.<sup>30</sup>

## Discussion

A healthy mouth is a fundamental key element of health and wellbeing. Our ability to have a healthy mouth is affected by our experience of oral diseases. These include tooth decay gum disease and oral cancers. Oral diseases are largely preventable but are still very common.

Significant improvements in oral health have been made however; many adults and children still suffer from pain in their mouth, tooth loss and difficulties eating. As well as these health impacts, sufferers also experience a range of wider impacts including, difficulties smiling, working and socialising.

This JSNA relies on data from Public Health England (PHE) Dental Public Health Epidemiology Programme (DPHEP). These surveys are for 3, 5 and 12 year olds. There was also a survey of children in Special Support schools. The methodology of these studies has been published.

Estimates of tooth decay experience in 3, 5 and 12 year olds in Swindon are not significantly different from the estimates for national and regional decay experience. Decay experience for 5 year olds seems to have deteriorated between the 2011/12 and 2014 surveys (24.1% to 27.9%). However, these figures are within margins of error. This survey did not find a significant difference between children in special support schools and other children. This is most likely to be because of the small sample size of children studied.

There is less readily available data on oral diseases in older people. There is an ongoing Public Health England (PHE) Dental Public Health Epidemiology Programme (DPHEP) survey in the elderly, with results expected in 2017. There is no reason to believe that Swindon experience of oral diseases is significantly different to national estimates.

People with the greatest oral health needs are usually vulnerable or disadvantaged in some other way already. Tooth decay, gum disease and oral cancer are associated with socioeconomic deprivation and increasing age. Young adults also experience tooth decay and, increasingly, oral cancers. People from black and minority ethnic groups tend to experience more oral diseases however; the relationship is complex and likely to be confounded by socio-economic status and lifestyle factors.

The causes of oral diseases are well understood but tackling them is complex. No single intervention or agency can improve oral health alone. Instead, a multi-agency approach is needed that delivers a range of interventions that improve oral health alongside general health. This should be coordinated through an oral health strategy for Swindon.

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<sup>8</sup> Results of survey of three year old children 2013 [http://www.nwph.net/dentalhealth/survey-results%203\(12\\_13\).aspx](http://www.nwph.net/dentalhealth/survey-results%203(12_13).aspx) last accessed 08/7/2016

<sup>9</sup> Results of the survey of 5 year old children [http://www.nwph.net/dentalhealth/survey-results%205\(14\\_15\).aspx](http://www.nwph.net/dentalhealth/survey-results%205(14_15).aspx) last accessed 08/7/2016

<sup>10</sup> Results of the survey of 5 year old children in 2011/12 <http://www.nwph.net/dentalhealth/survey-results5.aspx?id=1> last accessed 08/7/2016

<sup>11</sup> Results of 12 year old children survey 2008/2009 <http://www.nwph.net/dentalhealth/survey-results-12.aspx> last accessed 08/07/16

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