DENTAL CARIES IN CHILDREN AND YOUNG PEOPLE AN OVERVIEW OF TORBAY – 2016



The purpose of this profile is to provide an overview of tooth decay (also known as dental caries) in children and young persons in Torbay. Dental caries is a common problem that occurs when acid in the mouth dissolves the outer layer of the teeth. Although levels of decay have decreased in recent years; it is still one of the most widespread health problems in the UK, despite simple prevention strategies such as regular tooth brushing, flossing, using mouthwash and a sensible sugar intake (NHS Choices, 2014).

In England, around 12% of three-year old children (National Dental Epidemiology Programme [NDEP], Public Health England [PHE], 2013) and 25% of five-year old children (NDEP, 2015) experience tooth decay – having one or more teeth that are decayed to dentinal level, extracted or filled because of caries. The severity of decay is associated with higher levels of deprivation (NDEP, 2015).

Dental caries – In 2014/15 the NDEP survey of five-year old children estimated that around one in four children (27%) had experience of dental caries in Torbay. This has reduced from the previous survey estimate of 36% (2011/12); however was still significantly higher than the England average (25% in 2014/15).

The City of Bristol had the highest average number of decayed, extracted or filled teeth (DEFT) in the South West region in 2014/15 (1.0). Torbay ranked third highest with 0.8 DEFT.



Fig 1: Average decayed teeth and % of decay experience in the South West (2014/15)

Extractions – Without preventative measures, dental caries can result in a hospital admission for

tooth/teeth removal. In 2014/15 there were 324 young people aged 0-19 years attending hospital for dental extractions in Torbay. Around 85% of these extractions were as a direct result of dental caries. That meant that 1% of the Torbay population aged under 19 years had an extraction due to dental caries. This was significantly higher compared to England (0.3%). National data for 2015/16 is not currently available.

Based on local data for 2015/16, 285 young people (0-19yrs) had a hospital dental extraction in Torbay; 80% were as a direct result of dental caries. This means that the prevalence of tooth extractions has reduced from 1% in 2014/15 to 0.8% in 2015/16.

Age – Comparing quinary age bands (e.g. 0-4 yrs.) for young people aged less than 19 years, shows a higher proportion of dental extractions as a result of dental caries in the 5-9 year age group. This is shown by the prominent red bars in Figure 2 over the page. This suggests that preventative intervention may be most beneficial aimed at pre-school and younger primary school children.

Source: NDEP survey 2014/15, PHE



Fig 2: Age distribution of dental extractions due to dental caries (2012/13 to 2014/15*)



Source: SUS 2013/14-2015/16, *NDEP survey 2014/15, PHE

Ward – All wards in Torbay, except from Wellswood, have a significantly higher prevalence of dental extractions compared to England (2014/15). The areas coloured dark red in Figure 3 show the wards with the highest prevalence (per resident population 0-19 years) in Torbay.

Fig 3: Significantly different prevalence of dental extractions due to dental caries by ward



Deprivation – There was a weak positive association (R²=0.3) between dental extractions due to dental caries and deprivation as shown by the scatter plot in Figure 4 below. Similar associations with deprivation have been found nationally by the NDEP survey (PHE, 2014/15). The wards with the highest prevalence of dental extractions per resident population (0-19yrs – Fig 3) are made up of some of the most deprived lower super output areas (LSOAs) in England.





Source: SUS 2013/14-2015/16, DCLG, IMD 2015

Admission type – The majority (98%) of hospital admissions for dental extractions are classified as day case elective admissions. The remainder are emergency or inpatient elective admissions.

Operation type – The majority (83%) of operations are for the extraction of multiple teeth, followed by unspecified simple tooth extractions (15%). The average cost of an extraction(s) was £532 for Torbay residents over the admission period 2012/13 to 2015/16. The total cost of annual tooth extractions, for under 19 years, was approximately £139,600.

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