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The National Dental Epidemiology Oral Health Survey for 5-year-old children in Northern Ireland (2018-19)

A report on the variations in prevalence and severity of dental decay.

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Contents

Executive summary

This Northern Ireland (NI) specific report focuses on the dental health of 5-year-old children in 2018-19 and encompasses:

- The prevalence of dental decay
- Severity of experience of dental decay
- Levels of untreated dental decay
- The care index in 5-year-old children
- Prevalence of oral sepsis
- Prevalence of substantial amounts of plaque
- Prevalence of dental decay specifically affecting incisors

As dental decay is not equally or evenly distributed across the child population this report also focuses on the burden of decay in those children with experience of decay. These are the children that are most likely to experience sepsis and require more costly intervention at this age such as extractions under General Anaesthetic (GA). Given that findings in previous NI child dental health surveys have indicated a link between deprivation and dental decay experience, the prevalence and severity of experience of decay in 5-year-olds in NI is reported by deprivation quintile and Trust area to help identify potential inequalities.

Decay among young children remains an important public health issue due to its impact on quality of life for both children and parents, the high cost of treatment to the HSC and the fact that it is a preventable disease.

Decay levels among 5-year-old children can be a useful measure of the success of early interventions aimed at improving both the oral health and general health of the younger population. It can take many years for the effects of preventative interventions to become apparent therefore it is important to have a baseline measure against which post-intervention decay levels can be judged. This oral

health survey can also provide standardised data that allows comparison with similar surveys undertaken in England and Wales.

The exact methods used in this survey differ from those used in most previous surveys in NI, therefore caution should be used when making comparisons between these surveys.

Headline Findings

Overall, 68.41% of five-year-old children in NI who participated in this survey had no experience of obvious dental decay. The mean number of decayed, missing or filled teeth ($d_3$mft) per child in the sample (including those children who were decay free) was 1.22.

However, among the 31.59% of children with some experience of obvious dental decay, the mean number of teeth that were decayed, missing or filled was 3.86. This shows that the burden of dental disease is not spread equally among 5-year-old children in NI.

The results also reveal wide variations at both the Health and Social Care Trust (HSCT) area level and by deprivation quintile for both the prevalence and severity of dental decay. Unlike other UK jurisdictions, results are not presented by ethnic group as 'white' ethnic group accounts for over 98% of the resident population.[1]

The prevalence of experience of dental decay was higher in children from more deprived areas (45.25%) than those from the least deprived areas (16.27%) (based on quintile of deprivation using the child's home address). Furthermore, children from deprived backgrounds had higher levels of decay (1.84 $d_3$mft) than those from less deprived backgrounds (0.38 $d_3$mft). At Trust level the mean number of decayed, missing or filled teeth among five-year-olds in NI varied from 1.02 in the Southern HSCT area to 1.43 in the Western HSCT area. However, this difference was not found to be statistically significant. Despite falling prevalence and severity of dental decay within this age cohort in NI, inequalities persist. This confirms the need to continue acting so that all children can reach better levels of oral health. Information regarding the groups at greatest risk provided by this survey should be used to identify areas where extra effort is required. Furthermore, this report provides vital information to inform the planning and commissioning of interventions to improve oral health in NI.

Introduction

While the UK decennial children's dental surveys began in 1973, UK-wide standardised and coordinated *annual* surveys of child dental health did not commence until 1985. These have produced robust information for use at a regional and local government level and for varying health geographies. Commissioners and health planners may use the information produced from these surveys when conducting oral health needs assessments and to inform health investment decisions. The survey data detailed in this report relate to 5-year-old children from mainstream schools in NI.

This report refers to a number of technical terms in relation to teeth and gums. For non-dental readers we have included a summary of these key terms in Appendix A1. Dental caries (also known as tooth decay) and decay experience of children's teeth are major focuses of this report. In this survey the standard severity index for primary teeth with experience of decay, the $d_3$mft index was used. This index contains three components related to whether teeth have obvious decay into dentine (d_3t) which was the threshold for recording the presence of decay, missing teeth due to decay (mt) and teeth that have had fillings for caries (ft).

In primary teeth, an assessment of teeth missing due to decay is complicated by the natural exfoliation of the teeth, making it difficult to determine whether a tooth was lost due to dental decay or whether it exfoliated naturally. Following the approach adopted by Public Health England (PHE)[2], all missing primary canines and primary molars for the purposes of this report will be considered to have been extracted due to decay unless there is unquestionable evidence that a tooth has been extracted or lost for other reasons. Missing primary incisors will not be counted as missing due to decay because of the likelihood of natural exfoliation, given the age group of the children in this survey. This will lead to an underestimation of experience of decay but increased standardisation of decay measurement.

Methods

The sampling frame for this survey was children attending mainstream primary schools in NI who were aged 5-years-old at the time of the survey. The fieldwork was undertaken during the 2018/19 school year and data was collected by trained and calibrated community dental staff employed by the five HSCT areas in NI.

NI followed the Public Health England (PHE) protocol for the conduct and reporting of the oral health survey of 5-year-old children[2] which aligns with the British Association for the Study of Community Dentistry (BASCD) diagnostic criteria for caries prevalence surveys and guidance on sampling for surveys of child dental health[3-5].

Samples were drawn from the five HSCT areas in NI using the methodology outlined in the PHE protocol[2]. In brief, PHE suggest a minimum sample size of 250 examined children per lower-tier local authority (which corresponds to HSCT areas in NI), from a minimum of 20 mainstream schools. To allow for absenteeism and consent refusal and inaccuracies in the estimates of eligible children at each school, it is advised that a minimum of 360 children are randomly selected from each Trust area.

A two-stage sampling procedure is applied whereby within each HSCT area at least 20 schools are chosen at random. A stratified sampling method, which takes school size into account, is applied, for example, all children in smaller schools should be sampled, whereas 1 in 2 or 1 in 3 should be sampled from larger schools. Sampled schools were contacted to seek co-operation and age-eligible children were identified. Requests for consent for sampled children were sent to parents and followed by a second request when no response was made to the first.

A visual-only examination method was used and informed the standard severity index for teeth with experience of dental decay; missing teeth presumed extracted due to decay (mt), filled teeth due to decay (ft) and teeth with visually obvious decay into dentine (dt), which was the threshold for recording the presence of decay and is indicated by the subscript ‘3’ (d_3t).This dentinal decay threshold is widely accepted in the literature as a standard caries metric but it should be noted that it provides an underestimation of the true prevalence and severity of disease as clinical and

enamel caries are not included. In this survey, missing incisors were not included in the ‘mt’ component. The presence or absence of plaque and oral sepsis were also recorded.

Data were collected using tailor-made data collection forms. Electronic files of the raw, anonymised data were uploaded to a secure folder on a shared network drive. The team collated, checked and cleaned the data then linked it (using home postcodes) to multiple deprivation scores (using the NI Multiple Deprivation Measure 2017 (NIMDM2017)[6].

Population weighting was used to calculate estimates of a range of measures of oral health for each HSCT area and for NI as a whole. Deprivation scores were used to allow weighting of the sample data to more closely match the actual distribution of the population. Deprivation quintiles (which divide the population into fifths according to distribution of NIMDM2017 scores) were derived from 890 Super Output Areas (SOAs) in NI (where rank 1 is the most deprived and 890 the least deprived).

The data were analysed using Stata 17 software (StataCorp. 2017. *Stata Statistical Software: Release 15*. College Station, TX: StataCorp LLC). Appropriate statistical methods for analysing complex survey data were employed such that estimates contained within this document account for the stratified sampling scheme, the primary sampling units and weighting variables.

The median number of teeth with experience of dental decay for all children is also presented, together with the interquartile range, in line with good practice for reporting dental epidemiological studies. However, the median values at HSCT area are not presented. This is due to the distribution of experience of dental decay in the 5-year-old population where the majority of children have not experienced the disease hence the median values are all zero. Confidence intervals were used to assess statistical significance.

All processing of personal data, meaning all aspects of collection, use and sharing of data about identifiable individuals was compliant with General Data Protection Regulations (GDPR) which became UK law on 25 May 2018 as outlined in the PHE protocol[2].

Results

Participation in the survey

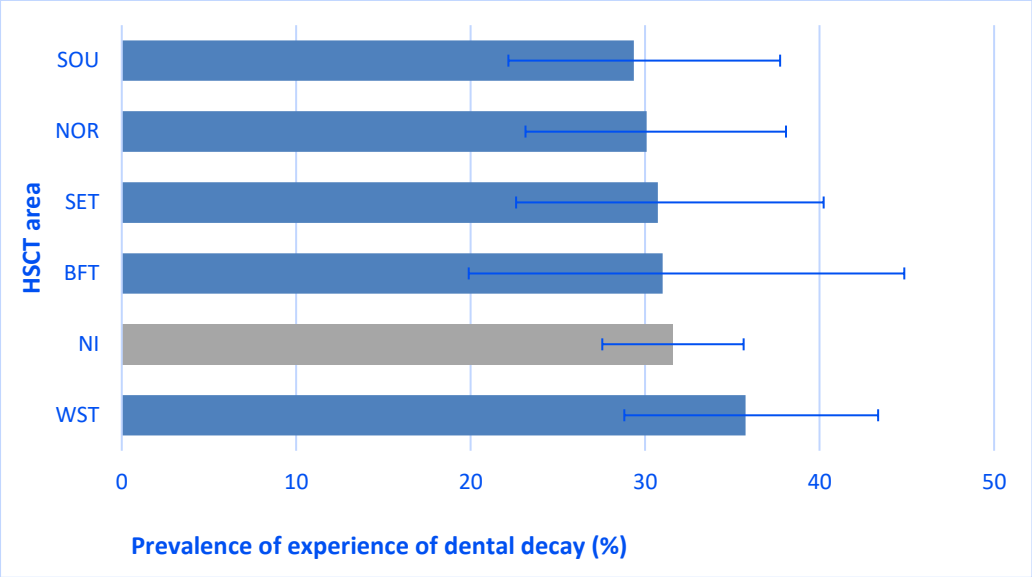
The sample drawn from all eligible five-year-old children in mainstream primary education in NI comprised 1,698 children. Of this number, positive consent was provided for 1,142 children (67.26%). On the day of examination, 8 children declined to participate, 46 were absent and 9 children were just prior to their 5th birthday or had turned 6. Data on 1,079 children were analysed (63.55% of eligible children) which represents 4.26% of the population of this age cohort attending mainstream primary school in NI**.**

Further breakdown of the sample into HSCT area resulted in a sample consisting of 206 residing in the Belfast Health and Social Care Trust (BHSCT), 225 in the Northern Health and Social Care Trust (NHSCT), 205 in the South Eastern Health and Social Care Trust (SEHSCT), 231 from the Southern Health and Social Care Trust (SHSCT) and 212 from Western Health and Social Care Trust (WHSCT).

Prevalence of experience of dental decay in 5-year-olds

The prevalence of experience of dental decay in 5-year-old children in NI ($d_3$mft) was 31.59%. This represents nearly 8,000 children in NI with the disease in a one-year cohort. Prevalence varied at a regional level from 29.35% in the Southern HSCT area to 35.75% in the Western HSCT area (Figure 1).

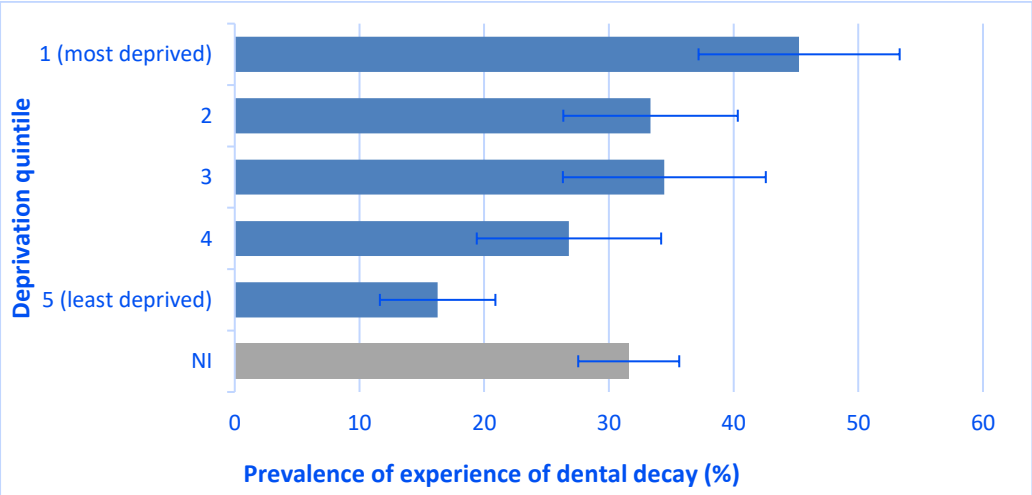
Figure 1: Prevalence of experience of dental decay in 5-year-olds in NI by HSCT area, 2018/19.



Error bars represent 95% confidence limits.

Prevalence of dental decay also varied by deprivation quintile (Figure 2), with those categorised as 'most deprived' exhibiting greater prevalence of dental decay experience (45.25%) compared to those categorised as 'least deprived' (16.27%).

Figure 2: Prevalence of experience of dental decay in 5-year-olds in NI by deprivation quintile, 2018/19.



Error bars represent 95% confidence limits.

Severity of experience of dental decay in 5-year-olds

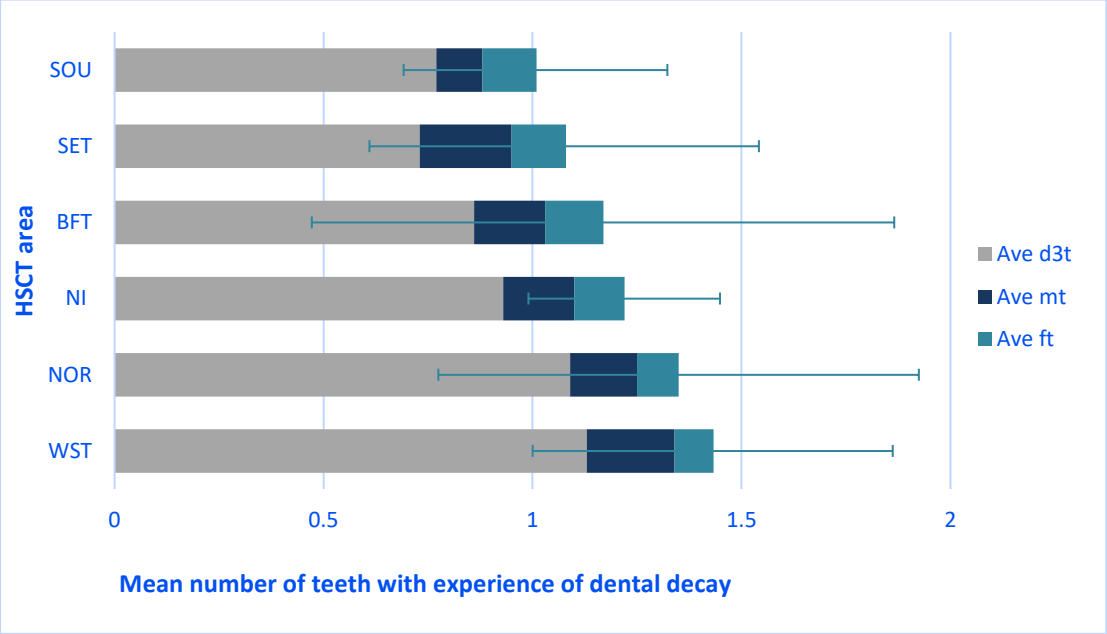
The mean number of teeth with experience of dental decay ($d_3$mft) in all children was 1.22 (CI: 0.99-1.45). The median number of teeth with experience of dental decay was 0 (interquartile range 0-1) which is expected given that 68.41% of children surveyed had no experience of dental decay. In those with decay experience, the mean number of teeth with experience of decay ($d_3$mft) was 3.86 (CI 3.46-4.26). Mean values for NI and by HSCT area are presented below (Table 1).

Table 1: Mean number of teeth with experience of dental decay in 5-year-olds in NI by HSC Trust area, 2018-19.

Region name	Mean number of teeth with experience of dental decay in the whole sample (95% confidence intervals)	Mean number of teeth with experience of dental decay in those with decay experience (95% confidence intervals)
Southern	1.02 (0.70-1.33)	3.47 (3.07—3.86)
South Eastern	1.09 (0.62-1.55)	3.53 (2.73-4.34)
Belfast	1.18 (0.48-1.87	3.80 (2.71-4.89)
Northern Ireland	**1.22** (0.99 – 1.45)	**3.86** (3.46-4.26)
Northern	1.35 (0.77-1.92)	4.49 (3.32-5.66)
Western	1.43 (1.00-1.86)	3.99 (3.26-4.73)

Severity of experience of dental decay varied between the different HSCT areas from 1.02 (CI 0.70-1.33) in Southern HSCT to 1.43 (CI 1.00-1.86) in the Western HSCT area (Figure 3).

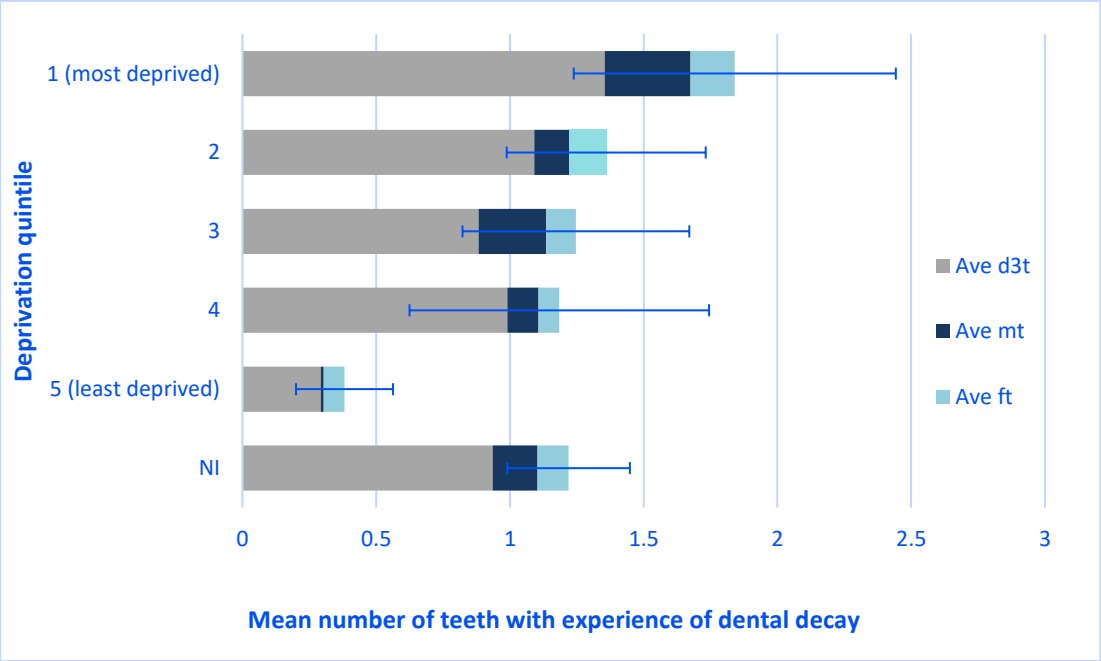
Figure 3: Mean number of teeth with experience of dental decay among 5-year-olds in NI by HSCT area, 2018-19.



Error bars represent 95% confidence limits

Scores for this index also varied widely across deprivation quintiles with those categorised as being 'most deprived' (based on the child's home postcode) having a mean $d_3$mft of 1.84 (CI 1.24-2.44) compared with only 0.38 $d_3$mft (CI 0.20-0.56) for those categorised as 'least deprived' (Figure 4).

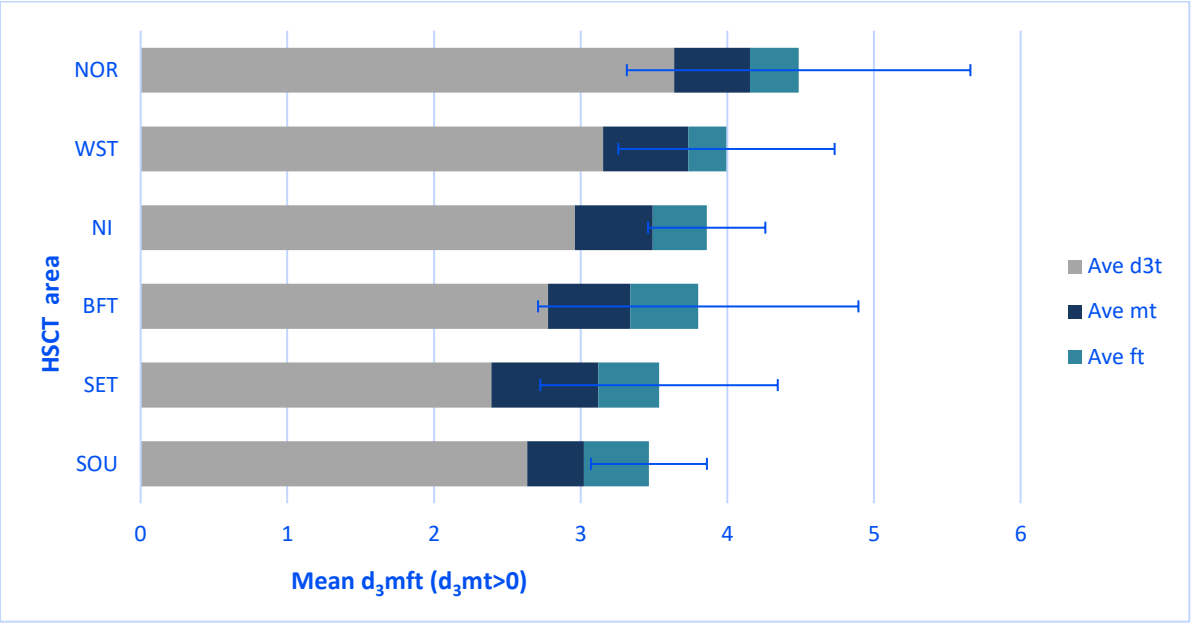
Figure 4: Mean number of teeth with experience of dental decay among 5-year-olds in NI by deprivation quintile, 2018/19.



Error bars represent 95% confidence limits.

Given the majority of children had no experience of dental decay, it is important to consider the severity of disease in those children that have experienced dental decay separately from those with no obvious decay experience. This will provide a better understanding of the extent/ burden of dental decay for those children with the disease. Of those children surveyed, 31.59% had experience of dental decay. Among these children, the mean number of teeth with experience of dental decay was 3.86 (CI 3.46-4.26). It should be remembered that children of this age would normally have 20 primary teeth. The severity of dental decay (using mean $d_3$mft, where $d_3$mft>0) varied by HSCT area from 3.47 (CI 3.07-3.86) in the Southern HSCT area to 4.49 (3.32-4.73) in the Northern HSCT area (Figure 5). As highlighted previously, this will be an underestimation as primary incisors are not included.

Figure 5. Mean number of decayed, missing or filled teeth ($d_3$mft) among 5-year-old children with any decay experience ($d_3$mft >0), by HSCT area, 2018/19.



Error bars represent 95% confidence limits

The severity of dental decay among 5-year-old children with any decay experience also varied by deprivation quintile. Mean decay scores of children in the least deprived quintile were 2.34 (CI 1.43-3.26) compared to 4.07 (CI 3.28-4.86) in the most deprived quintile.

In comparison to the equivalent survey in England in 2019, 23.4% of the examined children had experienced decay. Among these children the mean number of teeth with experience of dental decay was 0.80, with the mean number of teeth with experience of dental decay in those with decay experience was 3.40. This shows that in NI 5-year-old children have both a higher prevalence and severity of decay than a similar cohort of children in England. Evidence shows that these children are also more likely to develop more carious lesions later in childhood and are therefore a group that should be targeted for preventive intervention[7].

Untreated dental decay in 5-year-olds

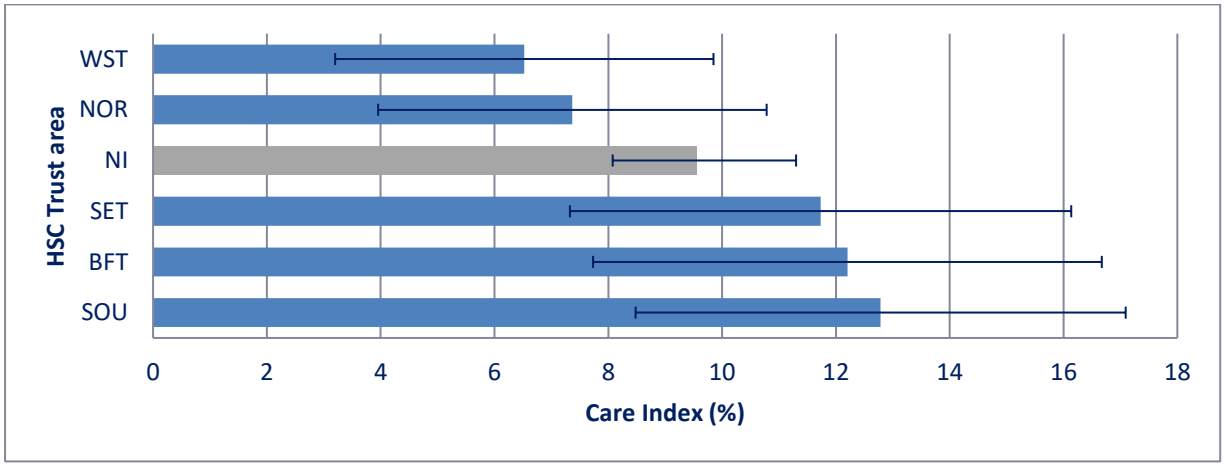
The major component of the $d_3$mft index was visually obvious, untreated decay into dentine (d_3t). On average, 5-year-olds with experience of dental decay in NI had 2.96 (CI 2.58-3.35) teeth with untreated decay into dentine. At a HSCT area level the mean number ranged from 2.39 (CI 1.80-2.98) in the South Eastern Trust area to 3.64 (CI 2.33-4.95) in the Northern Trust area. Similarly, this figure was 1.79 (CI 0.97-2.62) in the least deprived quintile and 2.99 (CI 2.21-3.78) in the most deprived.

The care index in 5-year-olds

The care index gives an indication of the restorative activity of dentists in each area. It is the percentage of teeth with decay experience that have been treated by filling (ft/$d_3$mft). Caution should be taken in making assumptions about the extent or the quality of clinical care available when using this index. Other intelligence such as levels of deprivation, disease prevalence and the provision of dental services should be considered when trying to interpret the implications of high or low scores.

The proportion of teeth that had experienced decay that were filled was 9.55% in NI as a whole. This varied between HSCT areas from 6.52% in the Western HSCT to 12.79% in the Southern HSCT (Figure 7). The proportion of teeth that were filled in the most deprived quintile was 8.96% and 20.50% in the least deprived quintile.

Figure 7. Care index among five-year-olds in NI by HSCT area, 2018/19



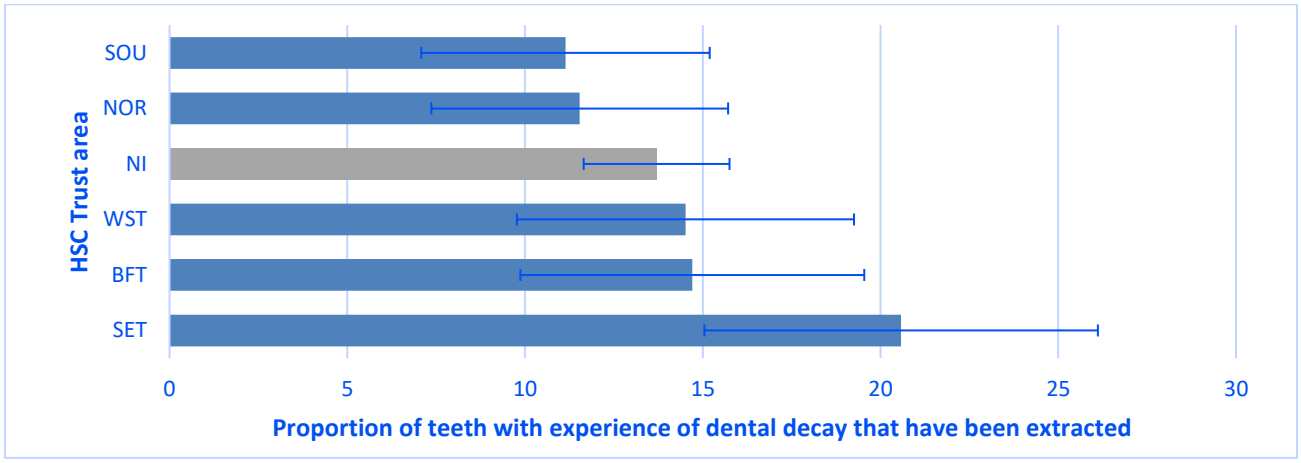
Error bars represent 95% confidence limits

The proportion of teeth with experience of dental decay that have been extracted in 5-year-olds

Extraction of teeth in young children can involve admission to hospital and a general anaesthetic. This might have occurred at any age prior to the survey, from 12 months onwards.

The proportion of teeth with experience of dental decay that had been extracted in 5-year-olds across NI was 13.70%. At a regional level this varied from 11.14% in the Southern HSCT area to 20.58% in the South Eastern HSCT area (Figure 8), and from 2.86% in the least deprived quintile to 17.43% in the most deprived.

Figure 8: Proportion of teeth with experience of dental decay that have been extracted in 5-year-olds in NI by HSCT area, 2018/2019



Error bars represent 95% confidence limits

Prevalence of oral sepsis in 5-year-olds

At the age of five years, nearly all oral sepsis will be the result of the dental decay process rather than originating from gum problems. A small number of cases will be linked to traumatic injury of teeth, but no diagnosis of cause was recorded during this survey. Oral sepsis was simply defined in the protocol as the presence of a dental abscess or sinus recorded by visual examination of the soft tissues.

Oral sepsis was recorded for 2.00% of children in NI (i.e. 20 children). The highest levels occurred in the Belfast HSCT area (3.13%) and the lowest in the Southern HSCT (0.48%). Similarly, the percentage of children with sepsis varied by quintile of deprivation from 3.27% in the most deprived to 0.46% in the least deprived quintile. Given the small number of children involved caution is warranted in interpreting these figures.

Prevalence of substantial amounts of plaque in 5-year-olds

The presence of substantial amounts of plaque compared with ‘visible’ or no plaque provides a proxy measure of children who do not brush their teeth, or brush them rarely. Such children cannot benefit from the protective effects of fluoride in toothpaste on dental decay. Plaque was reported in 185 children (16.96%), with a ‘substantial amount of plaque’ recorded in 9 children (1.03%).

Prevalence of dental decay affecting incisor teeth in 5-year-olds

It is useful to know what proportion of children had dental decay affecting one or more of their incisor teeth. This type of decay can be associated with long term bottle use with sugar-sweetened drinks, especially when these are given overnight or for long periods during the day.

Overall, the prevalence of incisor decay in 5-year-old children in NI was 6.49% and varied by HSCT area from 5.23% in the Southern HSCT to 9.99% in the Northern HSCT area. Over a three-fold difference existed between the most and least deprived quintiles with 9.81% prevalence of incisor decay in the most deprived quintile compared to 3.24% in least deprived quintile. Those in the most deprived quintile also had the highest mean number of incisors with caries and therefore could potentially benefit from a targeted population approach to tackle this specific problem.

Implications of results

Trends in experience of dental decay in 5-yr-olds in NI

Given that different epidemiological surveys in NI and other parts of the UK have used different methodologies and included different factors and terminology, comparing the currently available data accurately and looking for developing trends is difficult.

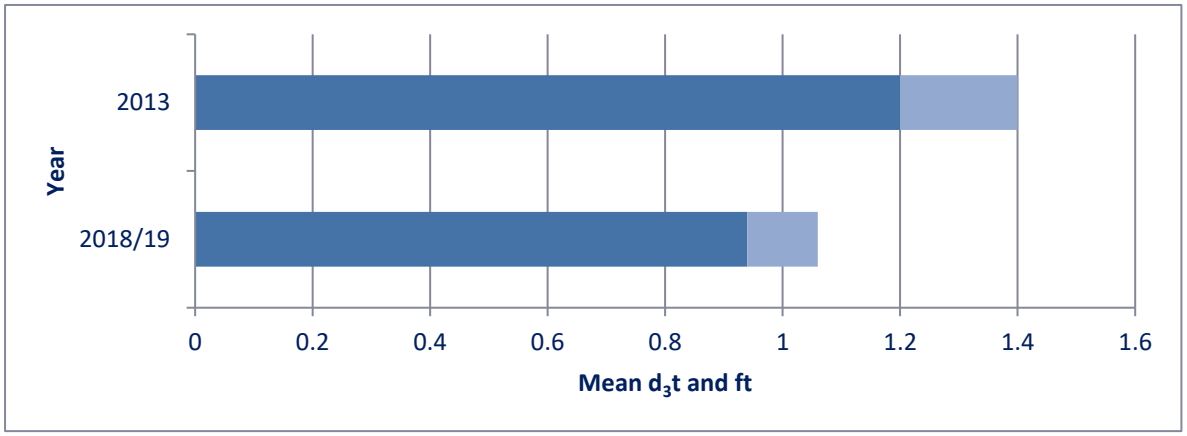
Previous surveys of 5-yr-olds in NI have included the 1995-6 survey and the National 2003 and 2013 Children's Dental Health Survey (CDHS 2003, CDHS 2013). While the methodology for undertaking these surveys has remained largely constant over time, a change in the consent process in 2007 (which required positive parental consent i.e. to *'opt-in'* to the survey) means comparisons with surveys before 2013 are not recommended. Furthermore, differences in the categories of decay data collected and reported in the national Children's Dental Health Surveys mean direct comparisons to the current survey findings are limited. That said, this survey does suggest an overall improvement in the experience of dental decay prevalence in 5-year-olds in NI since 2013.

The CDHS 2013 defines primary teeth with *obvious decay experience with visual dentine caries* as having untreated decay to dentinal level (visual dentine caries and cavitated dentine caries) or as being filled. The CDHS 2013 assumed that the attribution of missing teeth as due to decay cannot be made and so **all missing teeth are excluded** from this measure in 5-yr-olds in the report of that survey.

Looking to the current survey, we too can limit our analysis to *filled teeth due to decay* (ft) and *teeth with visually obvious decay into dentine* (d_3t).

Using these comparable measures, the proportion of children with no obvious dental decay has improved by 9.97 percentage points (from 60% in the CDHS 2013 to 69.97% in this survey) while the mean number of decayed or filled teeth has fallen from 1.40 (CDHS 2013) to 1.05 (2018/19), a reduction in severity of 25% over this period.

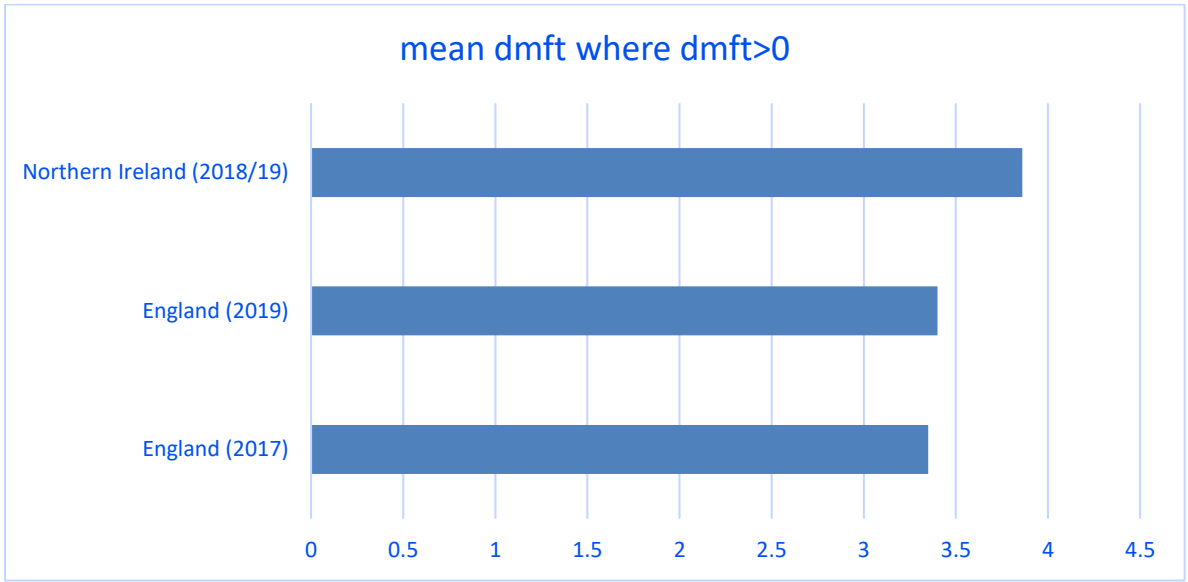
Figure 9. Mean number of decayed or filled teeth among 5-year-old children in NI (2013, 2018/19).



Public Health England have a coordinated National Dental Epidemiology Programme that has undertaken similar surveys in England in this age group five times now since the change to require positive/ “opt-in” consent. Comparing whole population results across the four surveys 2008-2017 in England shows a clear trend of significant improvement of dental health and a reduction in obvious decay experience however inequalities remained.

Given that the methodology used in this Northern Ireland survey was that of the PHE protocol it is possible to compare many of the indices.

Figure 10: Mean $d_3$mft in 5-year-olds with dental decay experience in England 2017, 2019 and in NI, 2018/2019.



In Wales, based on figures from *Picture of Oral Health 2017* in 5-year-olds (surveyed 2015/16), a reduction in the proportion of children with decay was also observed between 2007/08 (47.6%) and 2015/16 (34.2%). Over the same time period, mean decay experience also improved from 1.98 to 1.22. Dental disease levels continued to improve across all social groups, with the most deprived quintile having the largest reduction in decay prevalence (by 15%) and mean decay experience score (0.6).

In Scotland, the most recent National Dental Inspection Programme (NDIP 2020) reported that 73.5% of Primary 1 children had no decay experience (an improvement from 68% in the NDIP 2014 survey), with the average number of teeth affected by obvious decay experience in this cohort being 1.04 (compared to 1.27 in 2014). It should however be noted that this survey included 5 and 6-year-olds and differed with respect to the consent process.

Adjusted indices of multiple deprivation confirm that NI is the most deprived country of the UK with 37% of the population living in areas in the most deprived fifth of the UK, followed by Wales (22%)[8]. It is against this backdrop that the figures contained within this report should be viewed.

This survey is therefore best considered as a new baseline against which future national epidemiological surveys of 5-year-olds in NI can be compared to in order to assess any trends in prevalence or severity of dental decay. It is important therefore that the methodology is consistent going forward.

Interpretation of survey data

In order to maximise utility, in the annual programme of UK dental surveys, comparability or results is prioritised above detection of all disease. Essentially, this means that we can say with confidence that differences between decay levels over time or between areas are real but we cannot say that all dental decay has been detected. The methodology used in the survey strikes a balance between detecting decay of clinical significance and ensuring that participating examiners are able to produce standardised results which can be statistically compared.

In methodological terms, there are four main reasons why a dental survey which conforms to the current protocol for children's dental surveys in England and Wales, such as this one, underestimates the true experience of decay:

1. Missing deciduous incisors are not included in the results, this is due to the fact children may have naturally exfoliated their deciduous incisors at this age. Because it is difficult to determine if missing deciduous incisors have been extracted due to dental decay or if they have exfoliated naturally, excluding these teeth from the survey reduces a potential source of error.
2. The survey technique incudes a visual examination only, for diagnosis of all carious lesions radiographs would be required however it is clearly not justifiable or ethical to irradiate children for the purposes of a dental survey.
3. The need for parental consent for examination means not all children are examined, children for whom consent is not provided may have the highest levels of decay which then go unreported.
4. In the current NI survey and the annual surveys in England and Wales only level three dental decay (decay into dentine) is recorded. However, some surveys, such as the ten-yearly UK children's surveys, do record more superficial enamel and clinical decay experience. This approach is more time consuming and therefore expensive.

Putting this information to use

This survey data suggests a marked overall improvement in the oral health of 5-year-old children in NI when compared to previous data such as that from the Child Dental Health Survey 2013. However, with decay levels in NI comparatively higher than in England, based upon surveys using identical methodology, it is obvious that there is still room for improvement.

This survey will form the basis of future oral health needs assessments for young children in NI, providing data on inequalities in prevalence and severity of dental decay which should assist with planning and commissioning of dental health services and oral health improvement programmes.

Although there is sufficient overlap in the approach of the two surveys to allow comparison, the difference between the 2013 and 2018/19 methodologies does place limits on the conclusions that can be drawn. This issue is resolved if NI adopts the same survey protocol as England and Wales with biennial surveys of the 5-year-old population using the PHE/BASCD methodology. This would increase the validity of comparisons between survey results from all three countries and allow us to more accurately measure the impact oral health improvement projects are having on this age group in NI.

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Appendix

Term	Definition
Lowercase letters	Signifies deciduous teeth only
Mean $d_3$mft	Average number of dentinally decayed (d_3), missing due to dental decay (m) and filled (f) teeth (t)
Mean d_3t	Average number of obvious untreated dentinally decayed teeth
Mean mt	Average number of missing (extracted due to dental decay) teeth
Mean ft	Average number of filled teeth
% $d_3$mft > 0	Percentage of children with any decay experience
Mean $d_3$mft ($d_3$mft > 0)	Average number of dentinally decayed (d_3), missing due to dental decay (m) and filled (f) teeth (t) among those with any decay experience
Mean d_3t ($d_3$mft > 0)	Average number of dentinally decayed teeth among those decay experience
Mean mt ($d_3$mft > 0)	Average number of missing (extracted due to decay) teeth among those with decay experience
% d_3t > 0	Percentage of children with one or more obvious untreated dentinally decayed teeth
Mean d_3t (d_3t > 0)	Average number of dentinally decayed teeth among those with untreated decay
% mt > 0	Percentage of children who have had one or more teeth extracted due to dental decay (missing teeth)
Mean mt (mt > 0)	Average number of missing (extracted due to decay) teeth among those with missing teeth
% with substantial plaque	Percentage of children with substantial amounts of plaque visible
% with sepsis	Percentage of children with evidence of oral sepsis
% with incisor caries	Percentage of children with dentinal decay affecting incisors
% with code 3 t	Percentage of children with one or more teeth coded as having decay involving the pulp
Care Index %	Proportion of $d_3$mft score relating to treatment by filling (ft/$d_3$mft)
Extraction Index %	Proportion of $d_3$mft score relating to missing (extracted due to decay) teeth (mt/$d_3$mft)
95% Confidence limits	Lower and upper 95% confidence limits is the range within which we can be 95% confident the true value lies

Table 2: Breakdown of sample by HSC Trust area and deprivation quintile

Health and Social Care Trust area	Most deprived quintile (1)	Second most deprived quintile (2)	Mid quintile (3)	Second least deprived quintile (4)	Least deprived quintile (5)	Total
Belfast HSCT	60	22	21	29	74	**206**
Northern HSCT	19	52	43	66	45	**225**
South Eastern HSCT	44	20	33	43	65	**205**
Southern HSCT	46	71	78	13	23	**231**
Western HSCT	45	73	77	8	9	**212**
Total	**214**	**238**	**251**	**159**	**216**	**1078**