

# Publication Report



NATIONAL  
DENTAL  
INSPECTION  
PROGRAMME



## **National Dental Inspection Programme (NDIP) 2014**

**Report of the 2014 Detailed National Dental Inspection Programme of  
Primary 1 children and the Basic Inspection of Primary 1 and Primary  
7 children**

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## Introduction

### The 2014 National Dental Inspection Programme (NDIP) in school year 2013/14

The National Dental Inspection Programme (NDIP) is carried out annually with the support and approval of the Scottish Dental Epidemiology Co-ordinating Committee. Its principal aims are to inform parents/carers of the oral health status of their children and, through appropriately anonymised, aggregated data, advise the Scottish Government, NHS Boards and other organisations concerned with children's health of oral disease prevalence at national and local levels. This ensures that reliable oral health information is available for planning initiatives directed towards health improvements.

Two school year groups are involved: i) at entry into Local Authority schools in primary one (P1) and ii) in primary seven (P7) before the move to secondary education. The Inspection Programme has two levels: a *Basic Inspection* (intended for all P1 and P7 children) and a *Detailed Inspection* (where a representative sample of either the P1 or the P7 age group is inspected in alternate years).

This year's report focuses on the results of the *Detailed Inspection* of P1 school children in school year 2013/14 (noted as 2014 throughout the report). Information relating to the *Basic Inspection* of both P1 and P7 children can be found in [Appendix 6](#) of this Report. An Executive Summary of the main findings can be found at <http://www.isdscotland.org/Health-Topics/Dental-Care/National-Dental-Inspection-Programme/>.

## Key Definitions

### Detailed Inspection

- A comprehensive assessment of the mouth of each inspected child using a light, mirror and ball-ended probe.
- It involves recording the status of each surface of each tooth in accordance with international dental epidemiological conventions.
- It measures obvious decay into dentine (see below) when seen under school (rather than dental surgery) conditions.
- More information on the different stages of dental decay can be found in [Appendix 1](#).
- Those undertaking the inspections attend (and pass) a training and calibration course prior to the annual inspection process. Details of the course and of the calibration results can be found in [Appendix A2](#).

### Obvious Decay (d<sub>3</sub>)

- This is when the disease process clinically appears to have penetrated dentine (i.e. the layer below the outer white enamel of the teeth) on a tooth surface.
- This is described internationally as decay at the d<sub>3</sub> level and includes *pulpal decay* (i.e. decay into the deeper dental pulp).
- The definition of decay used here is in accordance with the British Association for the Study of Community Dentistry (BASCD) guidelines and international epidemiological conventions, thus allowing comparisons to be made with other countries in Europe and beyond.
- This is a different diagnostic level from that used by many dentists when examining patients in a dental surgery, i.e. for dental check-ups.
- Decay is also known as caries.

**Obvious Decay Experience (d<sub>3</sub>mft)**

- The sum of teeth which have decay into dentine (including teeth with fillings which require further treatment), filled teeth and teeth that are missing (extracted) due to decay. A hierarchy was used to ensure there was no double counting of teeth.
- Thus no obvious decay experience has d<sub>3</sub>mft=0.

**Care Index**

- The proportion of obvious decay experience in a population that has been treated restoratively (filled).
- This is calculated as follows:

$$\frac{\text{number of filled teeth}}{\text{number of obviously decayed, missing and filled teeth}} \times 100$$

or simply

$$\frac{ft}{d_{3mft}} \times 100.$$

**Scottish Index of Multiple Deprivation (SIMD)<sup>1</sup>**

- A tool for measuring the extent of deprivation across Scotland.
- Uses several different aspects of deprivation, combining them into a single index.
- This report looks at different versions of SIMD, broken down by both quintiles and deciles.

**Slope Index of Inequality (SII)**

- The absolute difference overall in obvious decay experience (d<sub>3</sub>mft) score when moving across the socio-economic (SES) spectrum and shows the total experience of individuals in the whole population and it is considered to be a consistent indicator with local populations.

**Significant Caries Index (SiC)<sup>2</sup>**

- Used to bring attention to the individuals with the highest caries values in each population under investigation. The Significant Caries Index is calculated as follows:

- § Individuals are sorted according to their d<sub>3</sub>mft values
- § One third of the population with the highest caries scores is selected
- § The mean d<sub>3</sub>mft for this subgroup is calculated. This value is the SiC Index.

**Significant Caries Index 10 (SiC10)**

- The mean d<sub>3</sub>mft for the tenth of the sample with the most teeth affected by obvious decay experience.

**Scottish Caries Inequality Metric (SCIM10)<sup>3</sup>**

- The area under the curve in relation to the distribution of the tenths of the population by obvious decay experience (d<sub>3</sub>mft).

SiC, SiC10 and SCIM10 are all considered to be non-socio-economic (non-SES) based tests of inequality.

## Specific Goals of the Detailed Inspection

- To determine current levels of obvious decay experience at national and NHS Board levels.
- To determine the influence of deprivation on the dental health of children in Scotland.

## How many children had a Detailed Inspection?

Each NHS Board is required to identify the number of Local Authority (LA) schools needed to obtain a representative sample of a given size from their P1 population. The sample sizes used provide adequate numbers to allow meaningful statistical comparisons between NHS Boards. Whole classes are randomly selected to simplify the process for schools while ensuring that results are representative of the P1 population in Scotland.

Between November 2013 and June 2014, 16,251 children (or more than 28% of the estimated P1 population) from Local Authority Schools across Scotland were included in the Detailed Inspection (Table 1). Across the NHS Boards, the percentage of P1 children inspected ranged from 12% to 88%.

NHS Boards can choose to increase the sample size above minimum requirements to aid local planning needs, and some less populated Boards need to include large proportions to achieve statistically meaningful results.

The average age of the children examined (both girls and boys) was 5.5 years. The range of ages across Scotland was 4.3 – 6.9 years.

**Table 1: Estimated Primary 1 population and the number and percentage who received a Detailed Inspection by NHS Board across Scotland in school year 2013/14<sup>1-4</sup>**

NHS Board	Estimated Primary 1 (P1) population	Number of P1 children receiving a Detailed Inspection	% of P1 population receiving a Detailed Inspection
Ayrshire & Arran	3,978	1,315	33.1
Borders	1,177	370	31.4
Dumfries & Galloway	1,577	343	21.8
Fife	3,979	515	12.9
Forth Valley	3,380	1,617	47.8
Grampian	6,132	2,768	45.1
Greater Glasgow & Clyde	12,724	3,651	28.7
Highland	3,342	1,300	38.9
Lanarkshire	6,672	815	12.2
Lothian	9,111	2,058	22.6
Orkney	242	214	88.4
Shetland	291	243	83.5
Tayside	4,118	791	19.2
Western Isles	298	251	84.2
<b>Scotland</b>	<b>57,021</b>	<b>16,251</b>	<b>28.5</b>

Source: ISD NDIP Database

1. Numbers are based on the postcode of the child and not the postcode of the school where the child was inspected.

2. Based on NHS Board boundaries as defined in 2006.

3. Primary 1 population is estimated using an aggregated population lookup file of children aged 5 (2012).

4. The estimated Primary 1 population of Orkney and Shetland was increased for analysis purposes.

## Key points

- More than two thirds (68%) of P1 children had no obvious decay experience in their primary teeth in 2014. This is a large improvement since ISD started recording this information in 2003 (45%).
- The average number of P1 children's teeth affected by obvious decay experience in 2014 is 1.27. This is less than half of the average number of teeth affected in 2003 (2.76).
- Only 53% of P1 children had no obvious decay experience in the most deprived areas compared with 83% in the least deprived areas.
- Note no obvious decay experience means there are no obviously decayed, missing or filled teeth.

## Results and Commentary

### Detailed Inspection Results

What are the obvious decay experience results for the teeth of P1 children in NHS Boards in Scotland?

Table 2 provides details of the results for all 14 NHS Boards across Scotland. In this 2014 survey, 32% of P1 children in Scotland had obvious decay experience in their primary teeth. For those children, the mean number of affected teeth was 3.97. This ranged across the Boards from 3.23 in Fife to 4.35 in Western Isles. The number of teeth affected in an individual child varied from one tooth to 20 teeth.

**Table 2: Obvious decay experience in primary teeth of P1 children for each NHS Board and Scotland in 2014<sup>1-3</sup>**

NHS Board	% with no obvious decay experience in primary teeth	Mean number of:				
		decayed, missing and filled teeth (d <sub>3</sub> mft)	decayed teeth (d <sub>3</sub> t)	missing teeth (mt)	filled teeth (ft)	decayed, missing and filled teeth for those with obvious decay experience (d <sub>3</sub> mft>0)
Ayrshire & Arran	66.3	1.27	0.74	0.34	0.19	3.78
Borders	76.8	0.85	0.59	0.14	0.13	3.59
Dumfries & Galloway	66.2	1.20	0.99	0.06	0.15	3.64
Fife	70.8	0.97	0.72	0.11	0.14	3.23
Forth Valley	66.2	1.33	0.90	0.22	0.21	3.97
Grampian	73.2	1.00	0.64	0.20	0.16	3.84
Greater Glasgow & Clyde	65.3	1.45	0.90	0.35	0.20	4.10
Highland	70.1	1.12	0.71	0.25	0.16	3.76
Lanarkshire	67.8	1.34	0.80	0.41	0.13	4.15
Lothian	68.9	1.31	0.94	0.21	0.17	4.27
Orkney	72.0	1.16	0.62	0.22	0.32	3.83
Shetland	80.9	0.64	0.38	0.12	0.15	3.30
Tayside	68.3	1.30	0.78	0.31	0.22	4.13
Western Isles	71.7	1.23	0.97	0.00	0.26	4.35
<b>Scotland</b>	<b>68.2</b>	<b>1.27</b>	<b>0.82</b>	<b>0.27</b>	<b>0.18</b>	<b>3.97</b>

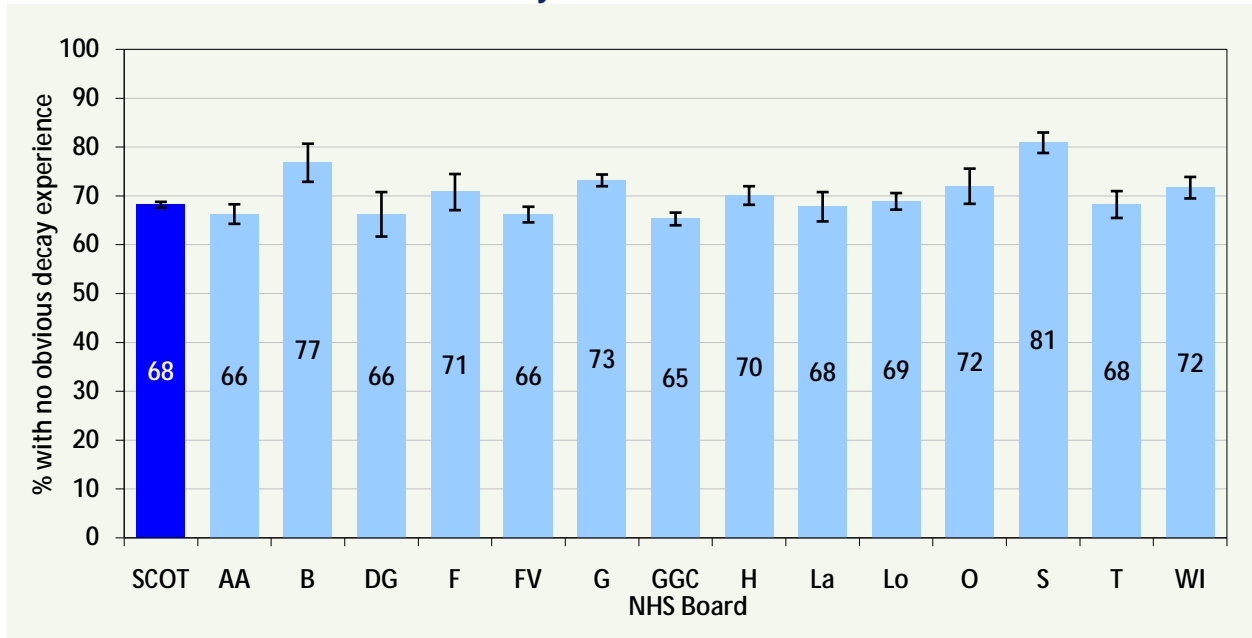
Source: ISD NDIP Database

1. Numbers are based on the postcode of the child and not the postcode of the school where the child was inspected.
2. Based on NHS Board boundaries as defined in 2006.
3. The definitions of d<sub>3</sub>mft, dt, mt, ft and d<sub>3</sub>mft>0 can be found in the [Glossary](#).

## What proportion of P1 children in Scotland had no obvious decay experience in 2014?

In Scotland, 68% of P1 children fell into this category, with a range of 65% in NHS Greater Glasgow & Clyde to 81% in NHS Shetland across the 14 NHS Boards (Figure 1).

**Figure 1: Percentage of P1 children in Scotland with no obvious decay experience in 2014; by NHS Board<sup>1-4</sup>**



Source: ISD NDIP Database

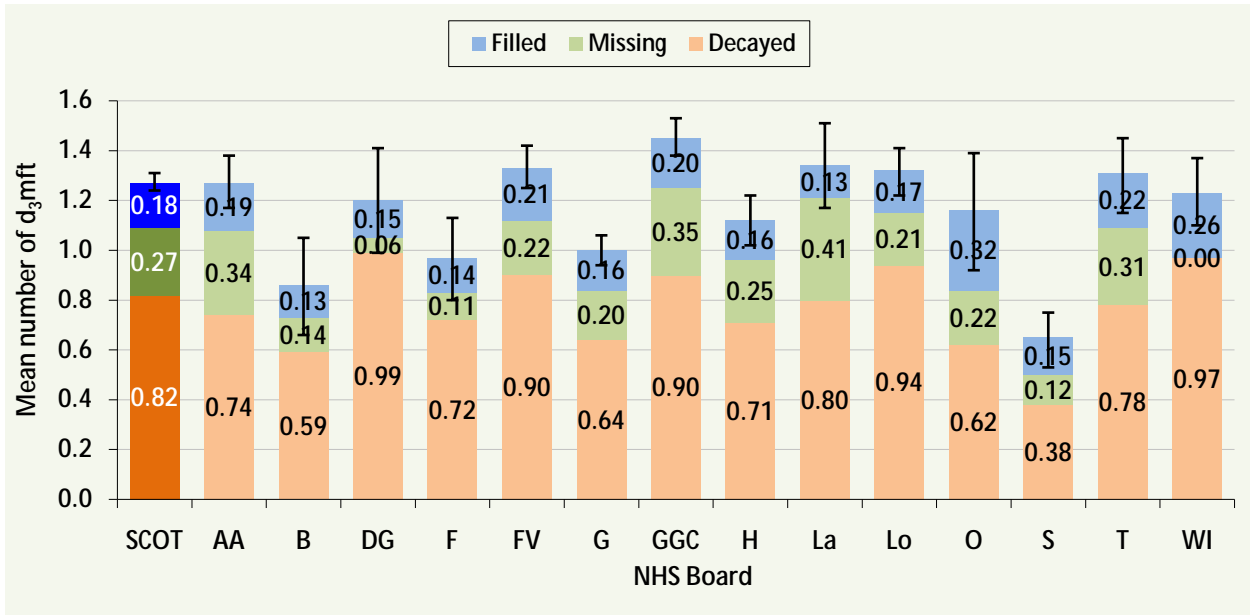
1. No obvious decay experience is when  $d_3mft=0$ .
2. Numbers are based on the postcode of the child and not the postcode of the school where the child was inspected.
3. Based on NHS Board boundaries as defined in 2006.
4. A key for the NHS Board abbreviations can be found in the [Glossary](#).



### What levels of obvious decay experience were seen in P1 children in 2014?

The average number of obviously decayed, missing and filled teeth ( $d_3mft$ ) across all P1 children inspected in Scotland was 1.27. This ranged from 0.65 in NHS Shetland to 1.45 in NHS Greater Glasgow & Clyde across the 14 NHS Boards in Scotland (Figure 2).

**Figure 2: Mean number of decayed, missing and filled primary teeth ( $d_3mft$ ) of P1 children in 2014 in Scotland and by NHS Board<sup>1-3</sup>**



Source: ISD NDIP Database

1. Numbers are based on the postcode of the child and not the postcode of the school where the child was inspected.

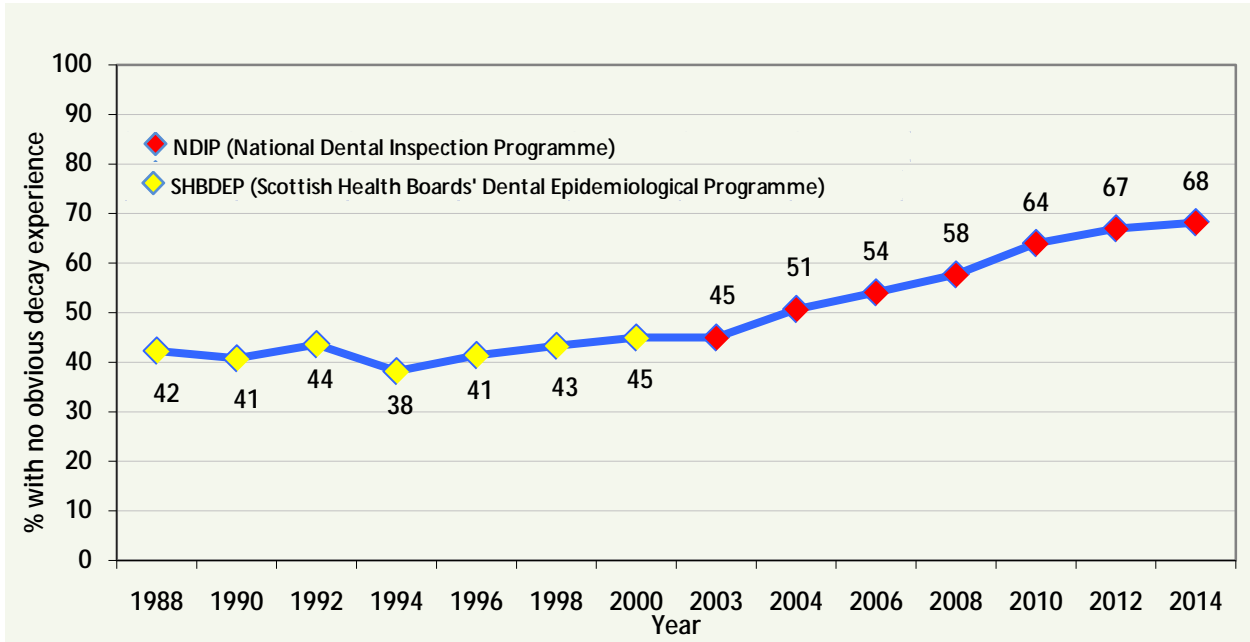
2. Based on NHS Board boundaries as defined in 2006.

3. A key for the NHS Board abbreviations can be found in the [Glossary](#).

### How has the dental health of P1 children in Scotland changed over time?

Figure 3 shows there has been a small increase since 2012 in the percentage of P1 children with no obvious decay experience ( $d_3mft=0$ ), but a large increase since 2003.

**Figure 3: Trends in the proportion of P1 children with no obvious decay experience in Scotland; 1988-2014<sup>1</sup>**

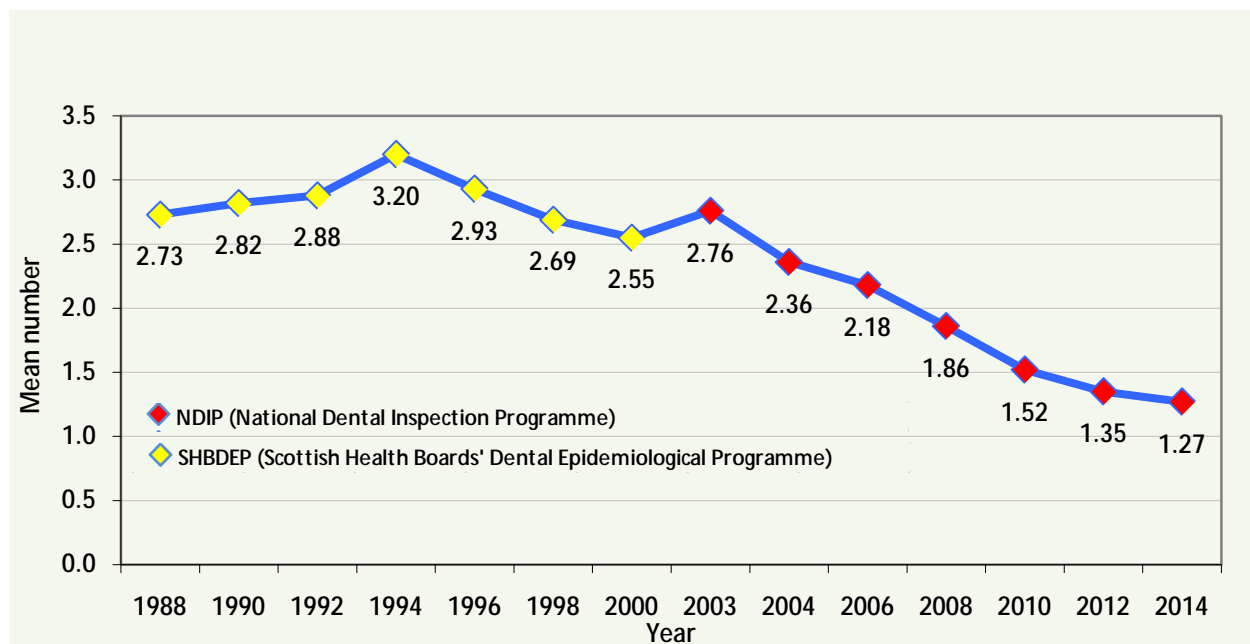


Sources: ISD NDIP Database, SHBDEP

1. The distance between each point does not represent an equal period of time as the results have not been published consistently over the 26 year period.

Similarly, there has been a continuing decline (improvement) in the mean number of decayed, missing and filled primary teeth for the P1 population as a whole (Figure 4) and also for the subgroup with obvious decay experience (Figure 5).

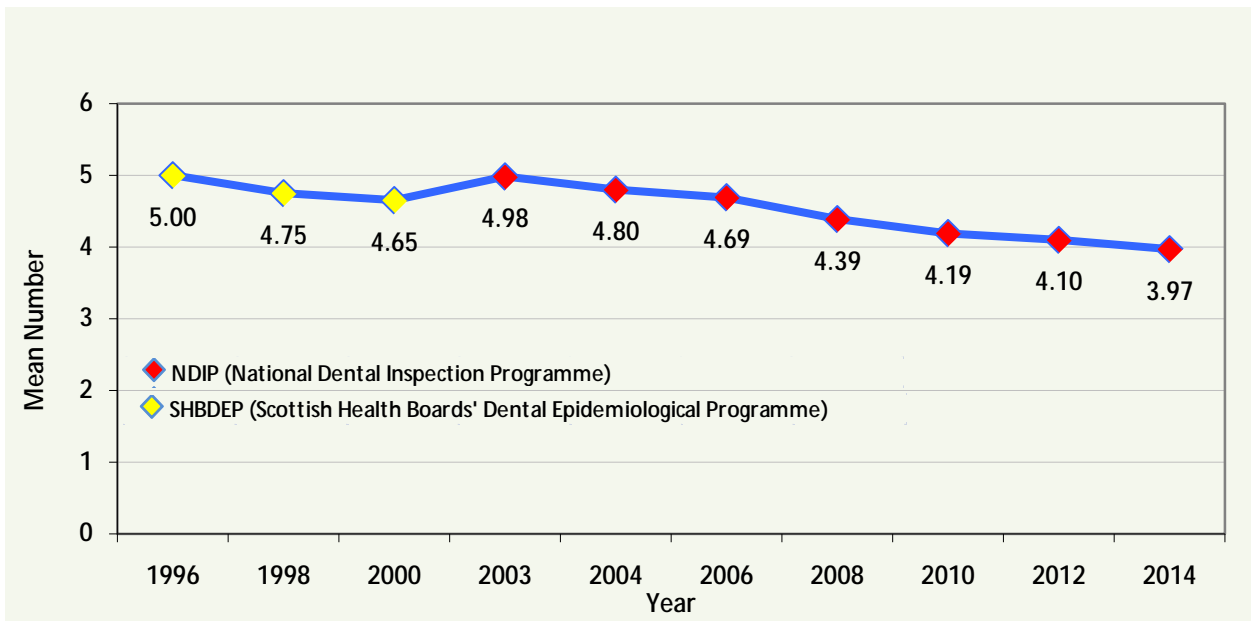
**Figure 4: Mean number of decayed, missing and filled primary teeth ( $d_3mft$ ) in the P1 population in Scotland; 1988-2014<sup>1</sup>**



Sources: ISD NDIP Database, SHBDEP

1. The distance between each point does not represent an equal period of time as the results have not been published consistently over the 26 year period.

**Figure 5: Mean number of decayed, missing and filled primary teeth in P1 children with obvious decay experience (i.e. in those with  $d_3mft > 0$ ) in Scotland; 1996-2014<sup>1</sup>**



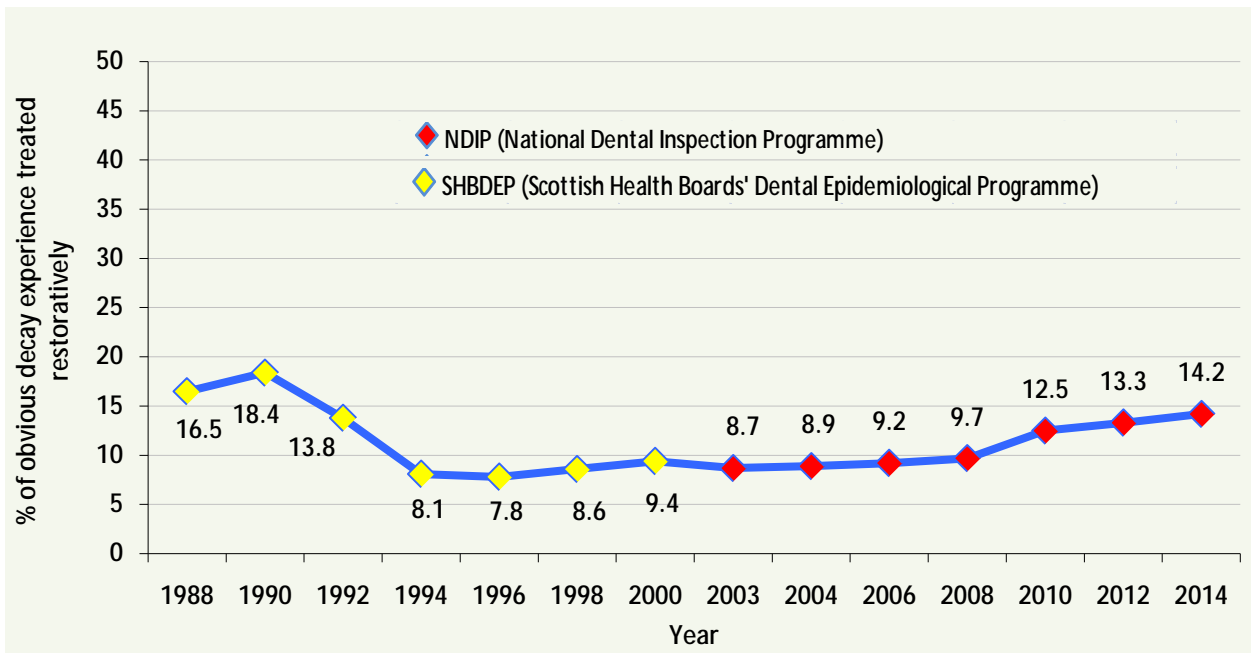
Sources: ISD NDIP Database, SHBDEP

1. The distance between each point does not represent an equal period of time as the results have not been published consistently over the 18 year period.
2. This measure was not calculated prior to 1996.

### What proportion of obvious decay experience in P1 children was treated with fillings?

Figure 6 shows the Care Index for the last 14 surveys. There has been a relatively stable improvement since 1994. In the 2014 survey, 14% of teeth with obvious decay experience had been filled. This ranged from 10% to 28% among the 14 NHS Boards. These results can be found in [Appendix 4](#) (Table A2).

**Figure 6: Care Index for P1 children in Scotland; 1988-2014<sup>1-2</sup>**



Sources: ISD NDIP Database, SHBDEP

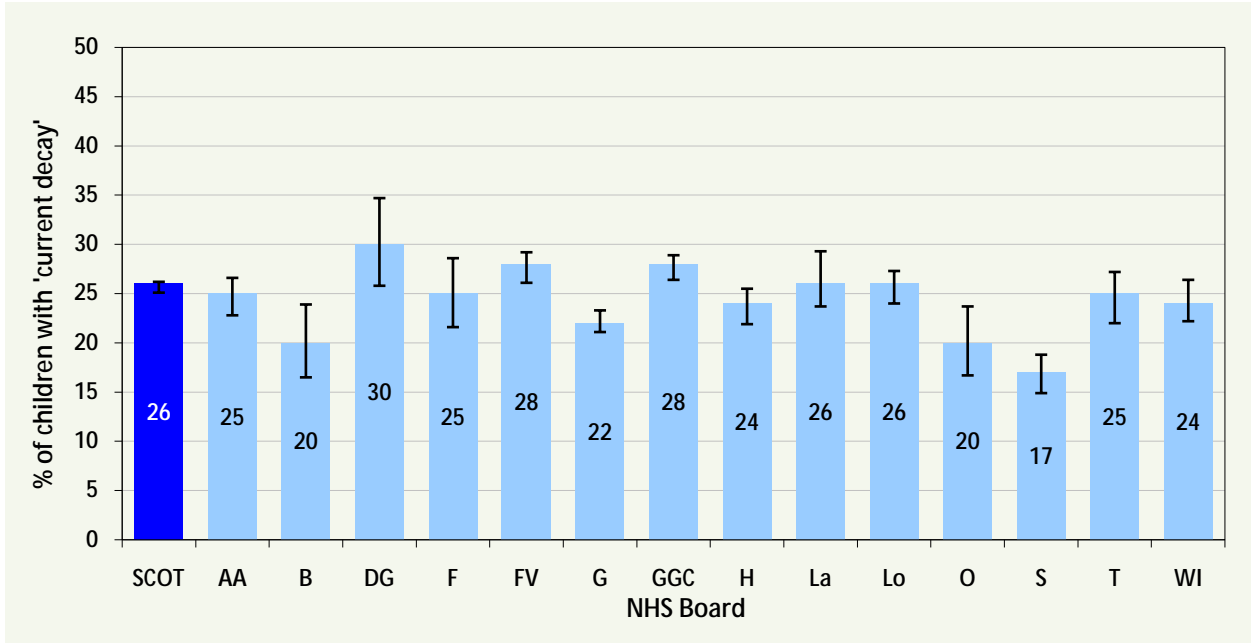
1. Care Index =  $\frac{\text{number of filled teeth}}{\text{number of teeth with obvious decay experience}} \times 100$

2. The distance between each point does not represent an equal period of time as the results have not been published consistently over the 26 year period.

## What proportion of P1 children had untreated decay?

In Scotland, 26% of P1 children had untreated decay ( $d_3t>0$ ), with a range of 17% in NHS Shetland to 30% in NHS Dumfries and Galloway across the 14 NHS Boards (Figure 7).

**Figure 7: Percentage of P1 children in Scotland with current decay for P1 children; by NHS Board in 2014<sup>1-4</sup>**



Source: ISD NDIP Database

1. Numbers are based on the postcode of the child and not the postcode of the school where the child was inspected.
2. Based on NHS Board boundaries as defined in 2006.
3. A key for the NHS Board abbreviations can be found in the [Glossary](#).
4. Current decay is when  $d_3t>0$  as per BASCD.

## Measures of Oral Health Inequalities

- Health inequalities can be measured and reported using simple or complex methods.
- The simple methods compare only two groups on a socio-economic scale, usually the most and least disadvantaged.
- The complex methods look across the whole social gradient, rather than solely at the most and least disadvantaged groups (e.g. Slope Index of Inequality (SII)).

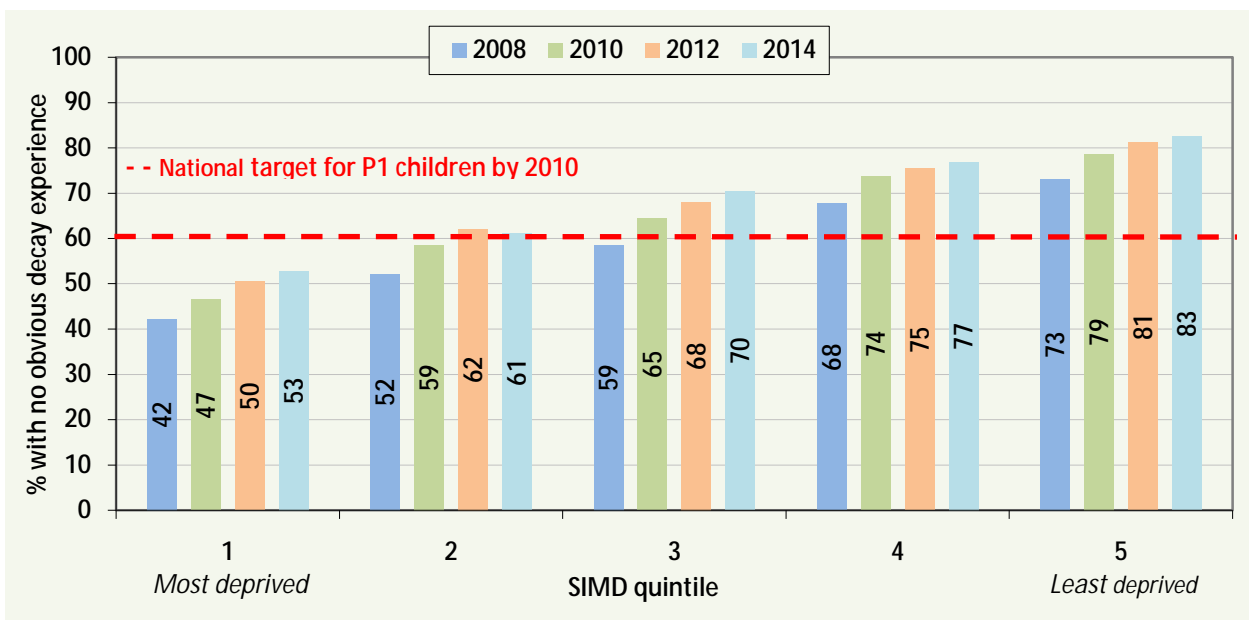
### Is there a continuing link between area-based socio-economic deprivation and poor dental health among P1 children in Scotland?

The main SIMD classification used here is based on quintiles of deprivation, where quintile SIMD1 is the most deprived and quintile SIMD5 is the least deprived.

There is clearly a difference in dental health among P1 children in the different SIMD quintiles. Only the second most deprived quintile (SIMD2) did not show an increase (improvement) in percentage of no obvious decay experience from the 2012 inspection (Figure 8).

The absolute inequality between SIMD1 and SIMD5 remains at 30% (similar to the previous three survey years), with 53% of P1 children in SIMD1 showing no obvious decay experience, compared with 83% of P1 children in SIMD5. In addition, the national target set in 2010 (60% of all P1 children to have no obvious decay experience) has still not been met in SIMD1.

**Figure 8: Change between 2008 and 2014 in the proportion of P1 children in Scotland with no obvious decay experience; by SIMD quintile<sup>1-2</sup>**



Source: ISD NDIP Database

1. No obvious decay experience is when  $d_3mft=0$ .

2. SIMD used has been subject to availability, as follows: 2008- SIMD 2006; 2010 & 2012- SIMD 2009; 2014- SIMD 2012.

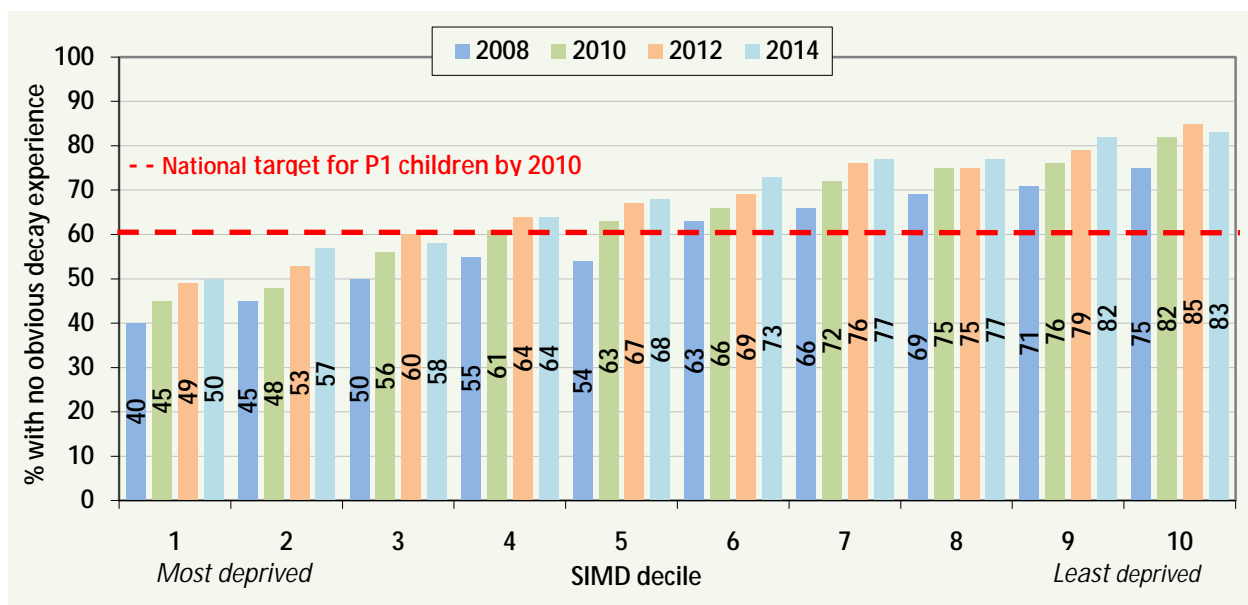
Similarly, there is an inequality gap in the average number of teeth with obvious decay experience ( $d_3mft>0$ ). This was 0.56 in the least deprived quintile (SIMD5) compared with 2.14 in the most deprived (SIMD1); data not shown.

The SIMD decile classification has 10 divisions of deprivation from decile 1 (most deprived) to decile 10 (least deprived).

As with the SIMD quintiles, there is clearly a difference in dental health among P1 children in the different SIMD deciles. As expected from the quintile results, the third and fourth most deprived deciles did not show an increase (improvement) in no obvious decay experience. The only other decile that did not show an increase was the least deprived, where there was a decrease (worsening) of 2 percentage points since 2012.

The absolute inequality between the most and least deprived deciles has decreased to 33%, a 2 percentage point decrease (improvement) since 2008. In addition, the national target set in 2010 (60% of all P1 children to have no obvious decay experience) has not been met in the three most deprived deciles.

**Figure 9: Change between 2008 and 2014 in the proportion of P1 children in Scotland with no obvious decay experience; by SIMD decile<sup>1-2</sup>**



Source: ISD NDIP Database

1. No obvious decay experience is when  $d_3mft=0$ .

2. SIMD used has been subject to availability, as follows: 2008- SIMD 2006; 2010 & 2012- SIMD 2009; 2014- SIMD 2012.

### Distribution of obvious decay experience across the population of P1 children in Scotland

The value for the Slope Index of Inequality (SII) in 2014 was 1.99, which is an improvement since 2008 (Table 3). Similarly, the three non-SES-based measures of dental health inequalities shown in the table (SiC, SiC10, SCIM10) also show improvements since 2012.

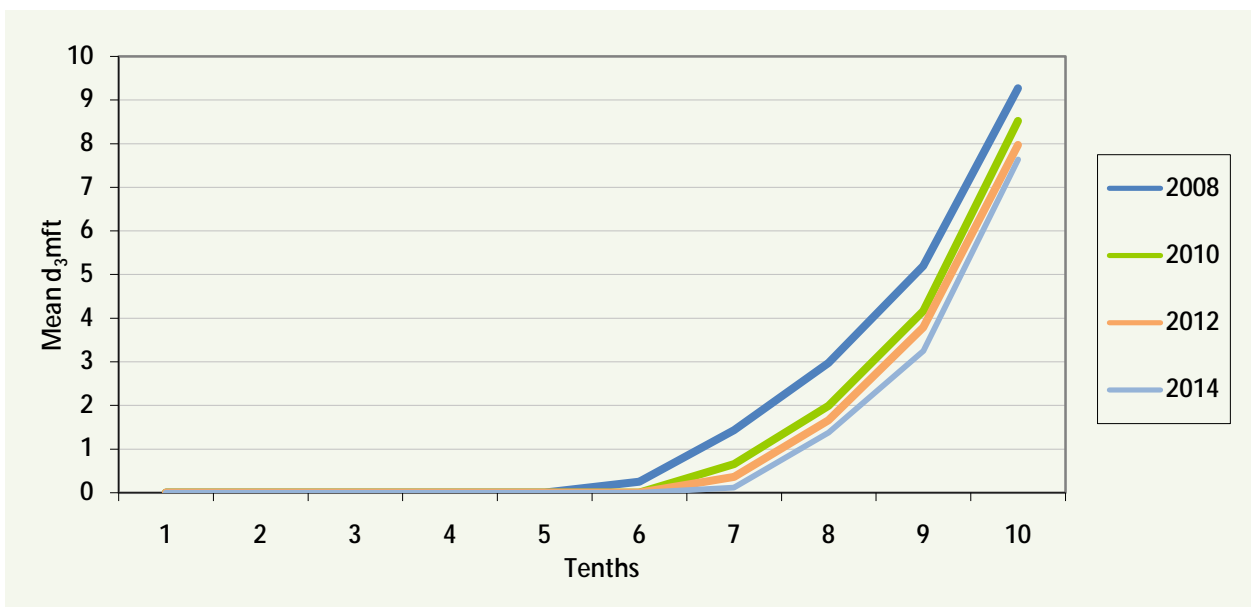
**Table 3: Inequality measures in teeth of P1 children in Scotland; 2008-2014**

	Slope Index of Inequality (SII)	Significant Caries (SiC) Index	Significant Caries 10 (SiC10)	Scottish Caries Inequality Metric (SCIM10)
2008	2.24	5.43	9.27	14.49
2010	2.42	4.50	8.52	11.07
2012	2.25	4.13	7.97	9.80
2014	1.99	3.72	7.64	8.57

Source: ISD NDIP Database

Figure 10 shows the mean obvious decay experience ( $d_3mft$ ) of each tenth of the sample, with children ranked by the number of teeth with obvious decay experience. Again this shows an overall reduction in the health inequality over time.

**Figure 10: Mean number of decayed, missing and filled primary teeth ( $d_3mft$ ) in each tenth of the distribution of  $d_3mft$  for P1 children in Scotland; 2008 – 2014**



Source: ISD NDIP Database

Results from the detailed inspection for the Community Health Partnerships are given in [Appendix 5](#).

Results of the Basic Inspection for all P1 and P7 children are given in [Appendix 6](#).



## Conclusions

- The oral health of P1 children in Scotland is slightly better than in 2012, and is considerably improved since the early 2000s when the National Dental Inspection Programme started.
- It is anticipated this improved level of dental health will be maintained as the Childsmile Programme<sup>4</sup> continues to be refined and implemented at NHS Board level.
- Clear health inequalities remain, with only small improvements seen for both the socio-economic and non-socio-economic tests of dental health inequality over the time period.

## Glossary

BASCD	British Association for the Study of Community Dentistry.
Basic Inspection	Simple assessment of the mouth of the child using a light, mirror and ball-ended probe. The dental status of each child is assigned to one of three categories, depending on the level of dental health and treatment need observed.
Care Index	Proportion of obvious decay experience that has been treated restoratively; expressed as number of filled teeth divided by number of obviously decayed, missing and filled teeth, multiplied by 100 [(ft/d <sub>3</sub> mft)x100].
Childsmile	National oral health improvement programme for children in Scotland.
Deprivation decile	This SIMD classification is based on deciles of deprivation (and is often used for greater depth of geographical analysis): decile 1 is the most deprived and decile 10 is the least deprived.
Deprivation quintile	This SIMD classification is based on quintiles of deprivation: quintile 1 is the most deprived and quintile 5 is the least deprived.
Detailed Inspection	Comprehensive assessment of the mouth of the child using a light, mirror and ball-ended probe. The status of each surface of each tooth is recorded in accordance with international epidemiological conventions.
d <sub>3</sub> mft	Obvious decay experience in primary teeth, as noted above; includes both missing teeth (extracted due to decay) and filled teeth.
d <sub>3</sub> mft>0	(Any) amount of decay experience in primary teeth.
d <sub>3</sub> t	Obviously decayed primary teeth.
ft	Filled primary teeth.
LA	Local authority.
mt	Missing primary teeth.
NHS Board abbreviations	AA: Ayrshire & Arran B: Borders DG: Dumfries & Galloway F: Fife FV: Forth Valley G: Grampian GGC: Greater Glasgow & Clyde H: Highland La: Lanarkshire Lo: Lothian O: Orkney S: Shetland T: Tayside WI: Western Isles
Obvious decay	Disease process that clinically appears to have penetrated dentine (the layer below the outer white enamel of the teeth). This is described internationally as decay at the d <sub>3</sub> level and includes <i>pulpal decay</i> (i.e. decay into the deeper pulp).

SCIM10	Scottish Caries Inequality Metric. The area under the curve in relation to the distribution of the tenths of the population by obvious decay experience (d <sub>3</sub> mft).
SES	Socio-economic status.
SiC	Significant Caries Index. This is used in order to bring attention to the individuals with the highest caries values in each population under investigation.
SiC10	Significant Caries 10. The mean d <sub>3</sub> mft for the tenth of the sample with the most teeth affected by caries experience.
SII	<a href="#">Slope Index of Inequality</a> . One of the recommended tests of complex inequality, as it reflects the entire SES distribution and weights for the population share in the respective groups. SII may be interpreted as the absolute difference overall in d <sub>3</sub> mft score when moving across the SES spectrum and is indicative of the total experience of individuals in the whole population.
SIMD	<p>Scottish Index of Multiple Deprivation. Classification identifying small area concentrations of multiple deprivation presented at data zone level and based on postcode unit information. Seven domains (income, employment, education, housing, health, crime and geographical access) are combined into an overall index to rank relative multiple deprivation in all geographical areas throughout Scotland.</p> <p>Several different versions of the SIMD are used across time. In 2008, the 2006 SIMD was used; in 2010 &amp; 2012, the 2009 SIMD was used; in 2014, the 2012 SIMD was used. For all of these indices, the most deprived quintile (or decile) is shown by SIMD1 or decile 1; and the least deprived quintile (or decile) shown by SIMD5 or decile 10.</p>

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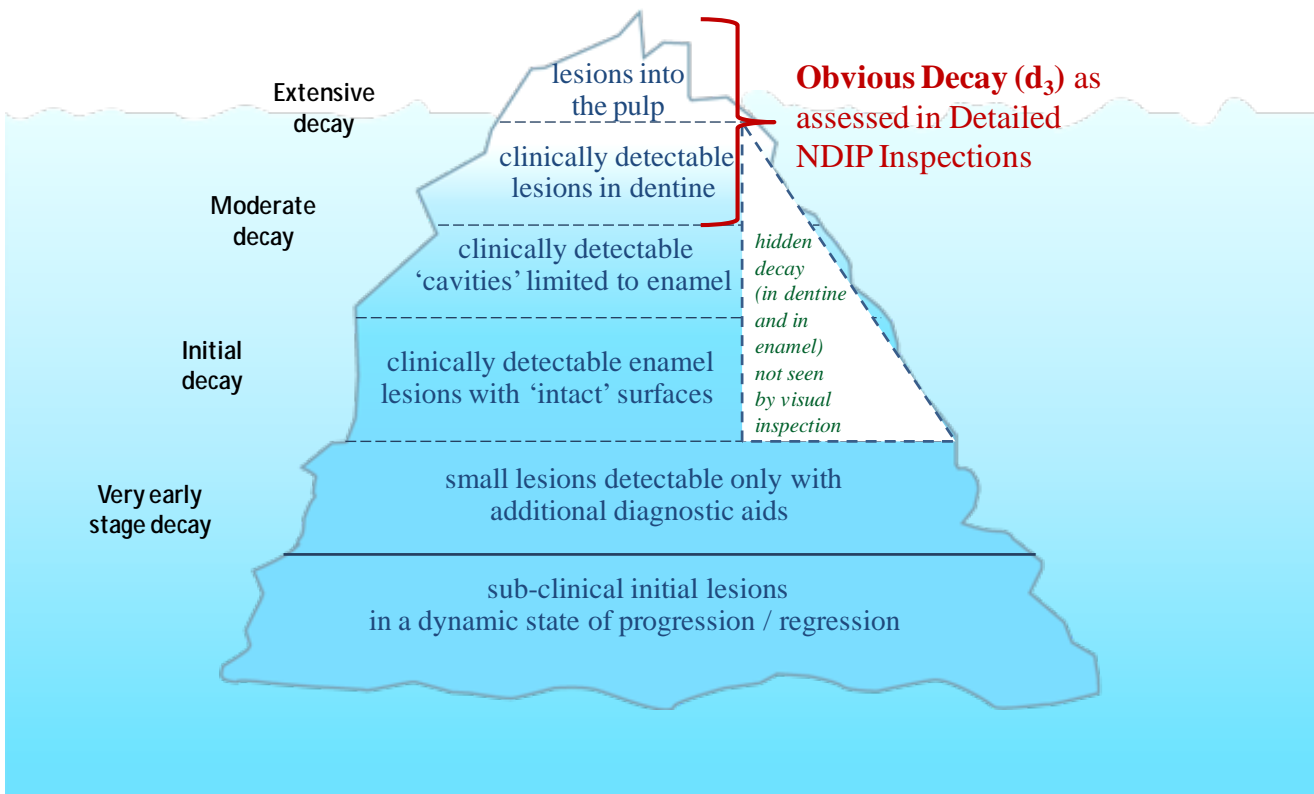
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## Appendix

### A1 – What are the stages of tooth decay?

Dentists use specific professional terms to identify the different stages of tooth decay. However, simpler terms are provided in Diagram 1 below to help illustrate the various stages of tooth decay. The early stages of decay occur at a sub-clinical level and cannot be detected by the naked eye. As decay progresses it can be detected visually, first on the outer surface of the tooth (enamel layer) and then, with further progression, the lesion is clinically detectable in the dentine layer under the enamel. It is decay which has reached this stage that is recorded by the dentists undertaking the NDIP inspections.

**Diagram 1: The various stages of tooth decay**





## A2 – National training and calibration course

The training and calibration course for the detailed NDIP survey of P1 children in Scotland was held in Edinburgh and Perth in November 2013. The training course was organised by NHS Lothian and the Public Health Sciences Directorate of NHS Health Scotland.

Mandatory training and calibration were run over three separate courses to accommodate the 51 inspection teams (dentist and dental nurse) who came from all 14 NHS Boards.

Training involved sessions on inspection procedures, tooth/surface codes and diagnostic criteria based on the British Association for the Study of Community Dentistry (BASCD) Trainers' Pack<sup>5</sup>. Clinical training sessions were then undertaken on schoolchildren, and were followed by the calibration sessions on a further group of P1 children. Calibration sessions involved each inspection team examining the same 10 children.

Analyses were undertaken by the Community Oral Health Section, University of Glasgow, supported by colleagues in NHS Tayside, NHS Lothian and NHS National Services Scotland's Information Services Division. Inter-examiner agreement was assessed using the percentage agreement and Kappa statistic assessed at the patient level on  $d_3mft$  and separately for dt, mt, and ft components.

Cohen Kappa estimates agreement, which is considered<sup>6</sup>:

- *poor* if  $Kappa \leq 0.20$
- *fair* if  $0.21 \leq Kappa \leq 0.40$
- *moderate* if  $0.41 \leq Kappa \leq 0.60$
- *substantial* if  $0.61 \leq Kappa \leq 0.80$
- *good* if  $Kappa > 0.80$

All 51 inspection teams calibrated with percentage agreement ranging from 93% to 100%, and the Kappa estimates for  $d_3mft$  scores at the patient level did not drop below moderate. Further investigation of the data on 5 inspection teams where the Kappa was lower than substantial found that the disagreement was on no more than 2 children.

### A3– Links/comparisons to other sources of dental health information

The sources below offer information related to dental services and dental health. Most of these sources are external to ISD and we cannot guarantee the content or accessibility of these external web sites.

[Childsmile](#) - improving the oral health of children in Scotland.

#### Dental data in Scotland

ISD publishes information relating to the [general dental service workforce](#) in Scotland.

ISD publishes an annual [NHS Adult & Child Fees and Treatments](#) report providing information on GDS fees paid to dentists and on treatments provided to children and adults.

ISD publishes a biannual [NHS Registration and Participation](#) report providing information on NHS General Dental Services (GDS) registrations and participation (contact with GDS).

The 2012 [Scottish Health Survey](#) covers dental health topics such as dental health problems and trends in prevalence of natural teeth.

ISD publishes information on the application of [fluoride varnishing](#) to children’s teeth. The recorded clinical activity is also being monitored under the Scottish Government’s [HEAT target](#) (at least 60% of 3- and 4-year-old children in each SIMD quintile to receive at least two applications of FV per year by March 2014).

**Table A1: Is NDIP Comparable with other UK dental data?**

Country	Comparable to NDIP?	Available	Links
England	No – consent affects participation rates of children with and without decay	Yes	The <a href="#">Dental Observatory</a> produced a report on the prevalence and severity of dental decay of five-year old children in 2011.
Northern Ireland	-	No	-
Wales	No – consent affects participation rates of children with and without decay	Yes	Cardiff University and Public Health Wales produce annual reports for <a href="#">childhood oral epidemiology programme</a> .

As stated, the results from these reports are not directly comparable with the NDIP report.

The Office for National Statistics’ (ONS) has carried out a [Dental Health Survey of Children and Young People](#) every ten years since 1973. The study provides information to underpin dental health care for children in England, Wales and Northern Ireland. The information collected helps the NHS to understand how the dental health of each generation of children is changing. It is used in the planning of dental care services for the future.

Please note that if you want to compare deprivation levels in Scotland and England, the Scottish Index of Multiple Deprivation (SIMD) is not directly comparable with the Index of Multiple Deprivation used in England.

## A4– Results of Care Index at NHS Board level; Detailed Inspection

Table A2 displays the Care Index from the 2014 survey for all 14 NHS Boards. This ranged from 9.7% in Lanarkshire to 27.6% in Orkney.

**Table A2: Care Index for P1 children in Scotland; by NHS Board<sup>1-3</sup>**

NHS Board	% of obvious caries experience treated restoratively
Ayrshire & Arran	15.0
Borders	15.3
Dumfries & Galloway	12.5
Fife	14.4
Forth Valley	15.8
Grampian	16.0
Greater Glasgow & Clyde	13.8
Highland	14.3
Lanarkshire	9.7
Lothian	13.0
Orkney	27.6
Shetland	23.4
Tayside	16.9
Western Isles	21.1
<b>Scotland</b>	<b>14.2</b>

Source: ISD NDIP Database

1. Care Index =  $\frac{\text{number of filled teeth}}{\text{number of teeth with obvious decay experience}} \times 100$ .

2. Numbers are based on the postcode of the child and not the postcode of the school where the child was inspected.

3. Based on NHS Board boundaries as defined in 2006.

## **A5– Results at Community Health Partnership (CHP) level; Detailed Inspection for Primary 1 children in 2014**

Tables A3.1-A3.12 show the 2014 Detailed NDIP results at Community Health Partnership level for the twelve NHS Boards which included the minimum target sample of 250 children in each CHP (if the CHP is within 10% of reaching the target, it was included). This target was not met by all CHPs within NHS Fife or by the CHP in NHS Orkney. The following variables are given:

- Mean age
- Weighted % no obvious decay experience
- Weighted mean  $d_{3mft}$
- Weighted mean  $d_{3t}$
- Weighted mean  $mt$
- Weighted mean  $ft$
- Mean  $d_{3mft}$  for children with  $d_{3mft}>0$

The results are weighted by population SIMD 2012 categories, specific to each NHS Board. This is different to the SIMD 2012 used in the main report which used Scotland level figures, and as such are not directly comparable.

**Table A3.1: NHS Ayrshire & Arran: Community Health Partnership results**

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
East Ayrshire	454	5.5	0.3	4.9	6.8
North Ayrshire	455	5.5	0.3	4.8	6.4
South Ayrshire	406	5.5	0.3	4.9	6.5

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
East Ayrshire	63.9	60.4	67.4
North Ayrshire	68.4	64.9	72.0
South Ayrshire	66.8	63.1	70.5

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
East Ayrshire	1.4	1.2	1.6
North Ayrshire	1.1	1.0	1.3
South Ayrshire	1.2	1.0	1.4

CHP name	Weighted mean d <sub>3</sub> t		
	Mean d <sub>3</sub> t	Lower 95% CL	Upper 95% CL
East Ayrshire	0.9	0.7	1.0
North Ayrshire	0.7	0.6	0.9
South Ayrshire	0.6	0.5	0.7

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
East Ayrshire	0.4	0.3	0.5
North Ayrshire	0.2	0.1	0.3
South Ayrshire	0.4	0.3	0.5

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
East Ayrshire	0.2	0.1	0.2
North Ayrshire	0.2	0.1	0.2
South Ayrshire	0.2	0.2	0.3

Table A3.1: NHS Ayrshire &amp; Arran: Community Health Partnership results continued

CHP name	no. of children with obvious decay experience	Mean $d_3mft$ for children with obvious decay experience ( $d_3mft > 0$ )		
		Mean	Lower 95% CL	Upper 95% CL
East Ayrshire	169	4.0	3.6	4.5
North Ayrshire	143	3.6	3.1	4.0
South Ayrshire	132	3.7	3.2	4.3

**Table A3.2: NHS Borders: Community Health Partnership results**

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
Borders	370	5.4	0.3	4.7	6.2

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
Borders	78.7	75.1	82.3

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
Borders	0.8	0.6	0.9

CHP name	Weighted mean d <sub>3</sub> t		
	Mean dt	Lower 95% CL	Upper 95% CL
Borders	0.5	0.4	0.7

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
Borders	0.1	0.1	0.2

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
Borders	0.1	0.1	0.2

CHP name	no. of children with obvious decay experience	Mean d <sub>3</sub> mft for children with obvious decay experience (d <sub>3</sub> mft >0)		
		Mean	Lower 95% CL	Upper 95% CL
Borders	80	3.6	2.9	4.2

**Table A3.3: NHS Dumfries & Galloway: Community Health Partnership results**

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
Dumfries & Galloway	343	5.4	0.3	4.7	6.7

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
Dumfries & Galloway	65.2	60.5	69.8

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
Dumfries & Galloway	1.2	1.0	1.5

CHP name	Weighted mean d <sub>3</sub> t		
	Mean dt	Lower 95% CL	Upper 95% CL
Dumfries & Galloway	1.0	0.8	1.2

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
Dumfries & Galloway	0.1	0.0	0.1

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
Dumfries & Galloway	0.1	0.1	0.2

CHP name	no. of children with obvious decay experience	Mean d <sub>3</sub> mft for children with obvious decay experience (d <sub>3</sub> mft >0)		
		Mean	Lower 95% CL	Upper 95% CL
Dumfries & Galloway	119	3.6	3.2	4.1



**Table A3.4: NHS Forth Valley: Community Health Partnership results**

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
Clackmannanshire	303	5.4	0.3	4.7	6.4
Falkirk	907	5.5	0.3	4.8	6.5
Stirling	411	5.5	0.3	4.9	6.4

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
Clackmannanshire	61.7	57.0	66.4
Falkirk	65.4	63.2	67.6
Stirling	69.5	66.2	72.7

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
Clackmannanshire	1.7	1.5	1.9
Falkirk	1.3	1.2	1.4
Stirling	1.2	1.0	1.4

CHP name	Weighted mean d <sub>3</sub> t		
	Mean dt	Lower 95% CL	Upper 95% CL
Clackmannanshire	1.2	1.0	1.4
Falkirk	0.8	0.7	0.9
Stirling	0.9	0.8	1.1

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
Clackmannanshire	0.2	0.1	0.3
Falkirk	0.3	0.2	0.4
Stirling	0.1	0.0	0.1

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
Clackmannanshire	0.2	0.2	0.3
Falkirk	0.2	0.2	0.2
Stirling	0.2	0.2	0.3

Table A3.4: NHS Forth Valley: Community Health Partnership results continued

CHP name	no. of children with obvious decay experience	Mean d <sub>3</sub> mft for children with obvious decay experience (d <sub>3</sub> mft >0)		
		Mean	Lower 95% CL	Upper 95% CL
Clackmannanshire	122	4.5	3.9	5.0
Falkirk	315	3.8	3.5	4.1
Stirling	121	3.9	3.4	4.5

**Table A3.5: NHS Grampian: Community Health Partnership results**

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
Aberdeen City	1151	5.6	0.3	4.5	6.5
Aberdeenshire	1145	5.6	0.3	4.3	6.5
Moray	472	5.5	0.3	4.7	6.3

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
Aberdeen City	72.0	70.4	73.7
Aberdeenshire	72.4	70.4	74.4
Moray	75.7	72.8	78.6

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
Aberdeen City	1.1	1.0	1.2
Aberdeenshire	1.0	0.9	1.1
Moray	0.8	0.7	0.9

CHP name	Weighted mean d <sub>3</sub> t		
	Mean dt	Lower 95% CL	Upper 95% CL
Aberdeen City	0.7	0.7	0.8
Aberdeenshire	0.7	0.6	0.8
Moray	0.5	0.4	0.5

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
Aberdeen City	0.3	0.2	0.3
Aberdeenshire	0.2	0.1	0.2
Moray	0.1	0.1	0.2

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
Aberdeen City	0.1	0.1	0.1
Aberdeenshire	0.2	0.1	0.2
Moray	0.2	0.2	0.3

Table A3.5: NHS Grampian: Community Health Partnership results continued

CHP name	no. of children with obvious decay experience	Mean d <sub>3</sub> mft for children with obvious decay experience (d <sub>3</sub> mft >0)		
		Mean	Lower 95% CL	Upper 95% CL
Aberdeen City	335	4.1	3.7	4.5
Aberdeenshire	321	3.7	3.4	4.0
Moray	115	3.4	3.0	3.9

**Table A3.6: NHS Greater Glasgow & Clyde: Community Health Partnership results**

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
East Dunbartonshire	327	5.5	0.3	4.4	6.4
East Renfrewshire	395	5.5	0.3	4.8	6.4
Glasgow City	1188	5.5	0.3	4.8	6.6
Inverclyde	357	5.5	0.3	4.9	6.2
Renfrewshire	443	5.5	0.3	4.8	6.8
West Dunbartonshire	308	5.5	0.3	4.8	6.3

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
East Dunbartonshire	75.6	71.6	79.5
East Renfrewshire	84.4	81.5	87.3
Glasgow City	58.8	56.3	61.2
Inverclyde	65.3	61.5	69.1
Renfrewshire	68.9	64.9	72.8
West Dunbartonshire	61.9	57.4	66.5

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
East Dunbartonshire	0.9	0.7	1.1
East Renfrewshire	0.5	0.4	0.7
Glasgow City	1.8	1.7	2.0
Inverclyde	1.4	1.2	1.6
Renfrewshire	1.3	1.1	1.5
West Dunbartonshire	1.5	1.3	1.7

CHP name	Weighted mean d <sub>3</sub> t		
	Mean dt	Lower 95% CL	Upper 95% CL
East Dunbartonshire	0.5	0.4	0.7
East Renfrewshire	0.3	0.2	0.4
Glasgow City	1.1	1.0	1.2
Inverclyde	1.0	0.8	1.1
Renfrewshire	0.9	0.7	1.1
West Dunbartonshire	1.0	0.8	1.2

Table A3.6: NHS Greater Glasgow & Clyde: Community Health Partnership results continued

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
East Dunbartonshire	0.2	0.1	0.3
East Renfrewshire	0.2	0.1	0.3
Glasgow City	0.5	0.4	0.6
Inverclyde	0.2	0.1	0.3
Renfrewshire	0.3	0.1	0.4
West Dunbartonshire	0.2	0.1	0.4

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
East Dunbartonshire	0.2	0.1	0.2
East Renfrewshire	0.1	0.0	0.1
Glasgow City	0.3	0.2	0.3
Inverclyde	0.2	0.2	0.3
Renfrewshire	0.1	0.1	0.2
West Dunbartonshire	0.2	0.2	0.3

CHP name	no. of children with obvious decay experience	Mean d <sub>3</sub> mft for children with obvious decay experience (d <sub>3</sub> mft >0)		
		Mean	Lower 95% CL	Upper 95% CL
East Dunbartonshire	81	3.6	3.0	4.3
East Renfrewshire	64	3.4	2.8	4.1
Glasgow City	502	4.5	4.2	4.8
Inverclyde	123	4.0	3.5	4.6
Renfrewshire	127	4.0	3.5	4.5
West Dunbartonshire	117	4.0	3.5	4.4

Table A3.7: NHS Highland: Community Health Partnership results

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
Argyll & Bute	371	5.5	0.4	4.8	6.5
Highland	929	5.6	0.3	4.9	6.9

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
Argyll & Bute	75.8	72.4	79.2
Highland	67.5	65.2	69.9

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
Argyll & Bute	0.9	0.8	1.1
Highland	1.2	1.1	1.3

CHP name	Weighted mean d <sub>3</sub> t		
	Mean dt	Lower 95% CL	Upper 95% CL
Argyll & Bute	0.6	0.5	0.7
Highland	0.7	0.7	0.8

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
Argyll & Bute	0.2	0.1	0.3
Highland	0.3	0.2	0.3

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
Argyll & Bute	0.1	0.1	0.2
Highland	0.2	0.1	0.2

CHP name	no. of children with obvious decay experience	Mean d <sub>3</sub> mft for children with obvious decay experience (d <sub>3</sub> mft >0)		
		Mean	Lower 95% CL	Upper 95% CL
Argyll & Bute	92	4.0	3.2	4.7
Highland	303	3.7	3.4	4.0

Table A3.8: NHS Lanarkshire: Community Health Partnership results

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
North Lanarkshire	710	5.4	0.3	4.7	6.3
South Lanarkshire	735	5.5	0.3	4.7	6.4

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
North Lanarkshire	63.5	60.0	66.9
South Lanarkshire	72.0	69.1	75.0

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
North Lanarkshire	1.6	1.3	1.8
South Lanarkshire	1.1	0.9	1.2

CHP name	Weighted mean d <sub>3</sub> t		
	Mean dt	Lower 95% CL	Upper 95% CL
North Lanarkshire	0.9	0.8	1.1
South Lanarkshire	0.6	0.5	0.8

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
North Lanarkshire	0.5	0.3	0.6
South Lanarkshire	0.3	0.2	0.4

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
North Lanarkshire	0.1	0.1	0.2
South Lanarkshire	0.1	0.1	0.1

CHP name	no. of children with obvious decay experience	Mean d <sub>3</sub> mft for children with obvious decay experience (d <sub>3</sub> mft >0)		
		Mean	Lower 95% CL	Upper 95% CL
North Lanarkshire	244	4.1	3.7	4.4
South Lanarkshire	205	3.8	3.4	4.2



**Table A3.9: NHS Lothian: Community Health Partnership results**

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
East Lothian	337	5.6	0.3	4.9	6.5
Edinburgh	912	5.5	0.3	4.6	6.4
Midlothian	317	5.4	0.3	4.6	6.4
West Lothian	491	5.5	0.3	4.5	6.3

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
East Lothian	72.5	68.5	76.6
Edinburgh	68.6	65.9	71.3
Midlothian	68.5	64.1	72.9
West Lothian	67.3	63.3	71.2

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
East Lothian	1.0	0.8	1.2
Edinburgh	1.4	1.2	1.5
Midlothian	1.3	1.1	1.5
West Lothian	1.5	1.2	1.7

CHP name	Weighted mean d <sub>3</sub> t		
	Mean dt	Lower 95% CL	Upper 95% CL
East Lothian	0.7	0.5	0.8
Edinburgh	1.0	0.8	1.1
Midlothian	0.9	0.7	1.1
West Lothian	1.0	0.8	1.2

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
East Lothian	0.2	0.1	0.3
Edinburgh	0.2	0.2	0.3
Midlothian	0.2	0.1	0.3
West Lothian	0.2	0.1	0.3

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
East Lothian	0.1	0.1	0.2
Edinburgh	0.2	0.1	0.2
Midlothian	0.2	0.1	0.3
West Lothian	0.2	0.1	0.2

Table A3.9: NHS Lothian: Community Health Partnership results continued

CHP name	no. of children with obvious decay experience	Mean $d_3mft$ for children with obvious decay experience ( $d_3mft > 0$ )		
		Mean	Lower 95% CL	Upper 95% CL
East Lothian	97	3.7	3.2	4.3
Edinburgh	305	4.4	4.0	4.8
Midlothian	110	4.3	3.7	4.8
West Lothian	147	4.4	3.8	4.9

Table A3.10: NHS Shetland: Community Health Partnership results

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
Shetland	243	5.6	0.3	4.9	6.5

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
Shetland	81.3	79.4	83.2

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
Shetland	0.6	0.5	0.8

CHP name	Weighted mean d <sub>3</sub> t		
	Mean dt	Lower 95% CL	Upper 95% CL
Shetland	0.4	0.3	0.4

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
Shetland	0.1	0.0	0.2

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
Shetland	0.1	0.1	0.2

CHP name	no. of children with obvious decay experience	Mean d <sub>3</sub> mft for children with obvious decay experience (d <sub>3</sub> mft >0)		
		Mean	Lower 95% CL	Upper 95% CL
Shetland	47	3.3	2.4	4.1

Table A3.11: NHS Tayside: Community Health Partnership results

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
Angus	250	5.6	0.3	4.9	6.4
Dundee	291	5.7	0.3	4.9	6.7
Perth & Kinross	250	5.6	0.3	4.8	6.4

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
Angus	72.4	67.5	77.2
Dundee	54.4	49.1	59.7
Perth & Kinross	78.1	73.5	82.6

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
Angus	0.9	0.7	1.2
Dundee	1.9	1.7	2.2
Perth & Kinross	1.0	0.7	1.3

CHP name	Weighted mean d <sub>3</sub> t		
	Mean dt	Lower 95% CL	Upper 95% CL
Angus	0.5	0.4	0.7
Dundee	1.1	0.9	1.3
Perth & Kinross	0.7	0.5	0.9

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
Angus	0.2	0.1	0.3
Dundee	0.5	0.3	0.6
Perth & Kinross	0.2	0.1	0.4

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
Angus	0.2	0.1	0.3
Dundee	0.4	0.3	0.5
Perth & Kinross	0.1	0.0	0.1

Table A3.11: NHS Tayside: Community Health Partnership results continued

CHP name	no. of children with obvious decay experience	Mean d <sub>3</sub> mft for children with obvious decay experience (d <sub>3</sub> mft >0)		
		Mean	Lower 95% CL	Upper 95% CL
Angus	70	3.4	2.7	4.1
Dundee	140	4.3	3.8	4.8
Perth & Kinross	56	4.6	3.6	5.5

**Table A3.12: NHS Western Isles: Community Health Partnership results**

CHP name	no. of children	Mean age			
		Mean	Std dev	Minimum	Maximum
Western Isles	251	5.4	0.3	4.7	6.9

CHP name	Weighted % no obvious decay experience		
	%	Lower 95% CL	Upper 95% CL
Western Isles	72.7	70.2	75.3

CHP name	Weighted mean d <sub>3</sub> mft		
	Mean d <sub>3</sub> mft	Lower 95% CL	Upper 95% CL
Western Isles	1.2	1.0	1.3

CHP name	Weighted mean d <sub>3</sub> t		
	Mean dt	Lower 95% CL	Upper 95% CL
Western Isles	0.9	0.8	1.0

CHP name	Weighted mean mt		
	Mean mt	Lower 95% CL	Upper 95% CL
Western Isles	0.0	0.0	0.0

CHP name	Weighted mean ft		
	Mean ft	Lower 95% CL	Upper 95% CL
Western Isles	0.3	0.2	0.3

CHP name	no. of children with obvious decay experience	Mean d <sub>3</sub> mft for children with obvious decay experience (d <sub>3</sub> mft >0)		
		Mean	Lower 95% CL	Upper 95% CL
Western Isles	71	4.4	3.5	5.2

## A6 – Basic Inspection results

### What does the NDIP Basic Inspection consist of?

The *Basic Inspection* involves a simple assessment of the mouth of the child using a light, mirror and ball-ended probe. The dental status of each child is then categorised into three groups, depending on the level of dental health and treatment need observed, and parents/carers are advised of this by letter. The information in the letter explains the state of dental health observed in the mouth of the child at the time of the inspection (the letter varies slightly according to whether a P1 or a P7 child has been inspected).

The letter types are as follows:

- Letter A - should seek immediate dental care on account of severe decay or abscess.
- Letter B - should seek dental care in the near future due to one or more of the following: history of tooth decay, a broken or damaged front tooth, tooth wear, poor oral hygiene or may require orthodontics.
- Letter C - no obvious decay experience but should continue to see the family dentist on a regular basis.

The results of the *Basic Inspection* are then anonymised and aggregated. They are used to monitor the impact of local and national NHS oral health improvement programmes and assist in the development of local dental services.

**Primary 1 Basic Data in P1 & P7 in Scotland; 2014**

During 2013/14, all P1 classes of Scottish Local Authority schools were invited to participate in the Programme. The *Basic Inspections* were conducted in primary schools in all NHS Board areas, and overall 52,439 P1 children were inspected (Table A4). This represents 92% of P1 children who attended mainstream Local Authority schools across Scotland in the 2013/14 school year and whose parents/carers were advised by letter of the oral health of their child.

**Table A4: Primary 1 children inspected by NHS Boards during school year 2013/14; Basic Inspection<sup>1-8</sup>**

NHS Board	Estimated Total no. of P1 children in Local Authority schools	Total no. of P1 children inspected	Proportion (%) of P1 children inspected	Proportion (%) of A letters issued	Proportion (%) of B letters issued	Proportion (%) of C letters issued
Ayrshire & Arran	3,978	3,611	90.8	5.4	26.8	67.8
Borders	1,177	1,059	90.0	5.9	20.3	73.7
Dumfries & Galloway	1,577	1,277	81.0	10.6	21.1	68.3
Fife	3,979	3,916	98.4	9.2	22.4	68.4
Forth Valley	3,380	3,101	91.7	10.8	22.0	67.1
Grampian	6,132	5,546	90.4	8.0	21.3	70.6
Greater Glasgow & Clyde	12,724	11,805	92.8	12.0	26.9	61.1
Highland	3,342	3,004	89.9	7.3	27.3	65.4
Lanarkshire	6,672	6,064	90.9	10.7	21.7	67.6
Lothian	9,111	8,411	92.3	8.3	23.5	68.3
Orkney	242	212	87.6	1.9	25.0	73.1
Shetland	291	245	84.2	2.0	17.1	80.8
Tayside	4,118	3,960	96.2	8.6	24.5	66.8
Western Isles	298	228	76.5	7.9	22.4	69.7
<b>Scotland</b>	<b>57,021</b>	<b>52,439</b>	<b>92.0</b>	<b>9.3</b>	<b>24.0</b>	<b>66.7</b>

Source: ISD NDIP Database

1. Numbers are based on the postcode of the child and not the postcode of the school where the child was inspected.
2. Based on NHS Board boundaries as defined in 2006.
3. Primary 1 population is estimated using an aggregated population lookup file of children aged 5 (2012).
4. Children with a missing postcode, had an exam but didn't receive a letter or didn't have an exam were removed before analysis. This accumulated to 4,912 children. Repeat examinations were also omitted.
5. The estimated Primary 1 population of Orkney and Shetland was increased for analysis purposes.
6. Letter A - should seek immediate dental care on account of severe decay or abscess.
7. Letter B - should seek dental care in the near future due to one or more of the following: history of tooth decay, a broken or damaged front tooth, tooth wear, poor oral hygiene or may require orthodontics.
8. Letter C - no obvious decay experience but should continue to see the family dentist on a regular basis.



**Primary 7 Basic Data**

In total, 44,698 P7 children received a *Basic Inspection*. This represents 80% of P7 children attending mainstream Local Authority schools across Scotland (Table A5). As with P1 children, parents/carers of those P7 children who received a *Basic Inspection* were advised by letter of the oral health of their child.

**Table A5: Primary 7 children inspected by NHS Boards during school year 2013/14; Basic Inspection<sup>1-8</sup>**

NHS Board	Total no. of P7 children in Local Authority schools	Total no. of P7 children inspected	Proportion (%) of P7 children inspected	Proportion (%) of A letters issued	Proportion (%) of B letters issued	Proportion (%) of C letters issued
Ayrshire & Arran	4,017	3,179	79.1	1.4	54.5	44.1
Borders	1,281	1,002	78.2	0.9	47.5	51.6
Dumfries & Galloway	1,518	1,241	81.8	2.9	52.8	44.3
Fife	3,785	3,252	85.9	2.3	43.9	53.8
Forth Valley	3,364	2,668	79.3	2.1	49.5	48.4
Grampian	5,934	4,617	77.8	1.9	52.8	45.3
Greater Glasgow & Clyde	12,678	10,294	81.2	2.8	52.7	44.5
Highland	3,393	2,705	79.7	2.0	54.5	43.5
Lanarkshire	6,597	5,425	82.2	1.7	44.2	54.1
Lothian	8,401	6,373	75.9	1.6	51.9	46.6
Orkney	215	163	75.8	-	47.2	52.8
Shetland	301	224	74.4	0.4	27.7	71.9
Tayside	4,397	3,313	75.3	1.1	47.5	51.4
Western Isles	290	242	83.4	2.5	52.5	45.0
<b>Scotland</b>	<b>56,171</b>	<b>44,698</b>	<b>79.6</b>	<b>2.0</b>	<b>50.3</b>	<b>47.7</b>

Source: ISD NDIP Database

1. Numbers are based on the postcode of the child and not the postcode of the school where the child was inspected.
2. Based on NHS Board boundaries as defined in 2006.
3. Primary 7 population is estimated using an aggregated population lookup file of children aged 12 (2012).
4. Children with a missing postcode, had an exam but didn't receive a letter or didn't have an exam were removed before analysis. This accumulated to 5,317 children. Repeat examinations were also omitted.
5. The estimated Primary 7 population of Orkney and Shetland was increased for analysis purposes.
6. Letter A - should seek immediate dental care on account of severe decay or abscess.
7. Letter B - should seek dental care in the near future due to one or more of the following: history of tooth decay, a broken or damaged front tooth, tooth wear, poor oral hygiene or may require orthodontics.
8. Letter C - no obvious decay experience but should continue to see the family dentist on a regular basis.

## A7 – Authors

This report, which is published by ISD Scotland on behalf of the Scottish Dental Epidemiology Co-ordinating Committee, has been prepared by the NDIP Report Writing Group, whose membership is as follows:

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**A8 – Publication Metadata (including revisions details)**

<b>Metadata Indicator</b>	<b>Description</b>
Publication title	National Dental Inspection Programme (NDIP) 2014.
Description	This report presents the results of the programme of children's dental inspections carried out in Scotland during school year 2013/14.
Theme	Dental care.
Topic	Children's dental health.
Format	PDF.
Data source(s)	2002/03, 2003/04, 2005/06, 2007/08, 2009/10, 2011/12, 2013/14 National Dental Inspection Programme databases; 1988, 1990, 1992, 1994, 1996, 1998, 2000 Scottish Health Boards' Dental Epidemiological Programme databases.
Date that data are acquired	Various dates during school year 2013/14.
Release date	28 <sup>th</sup> October 2014.
Frequency	Annual.
Timeframe of data	School year ending June 2014; four months in arrears.
Continuity of data	Reports annually.
Revisions statement	These data are not subject to planned major revisions. However, ISD aims to continually improve the interpretation of the data and therefore analysis methods are regularly reviewed and may be updated in future.
Revisions to this publication	None.
Concepts and definitions	See Glossary, Appendix and References.
Relevance and key uses of the statistics	The principal aims of the National Dental Inspection Programme (NDIP) are to inform parents/carers of the oral health status of their children and, through appropriately anonymised, aggregated data, advise the Scottish Government, NHS Boards and other organisations concerned with children's health of oral disease prevalence at national and local levels.
Accuracy	These data are regarded as highly accurate as per the Kappa estimates agreement in <a href="#">Appendix 2</a> .
Completeness	These data are regarded as suitably complete. The Basic inspection saw 92% of P1's and 80% of P7's inspected.
Comparability	Each annual NDIP report has two levels: a Basic Inspection (intended for all P1 and P7 children) and a Detailed Inspection (where a representative sample of either the P1 or the P7 age group is inspected in alternate years).
Accessibility	It is the policy of ISD Scotland to make its web sites and products accessible according to <a href="#">published guidelines</a> .
Coherence and clarity	Tables and charts are accessible via the <a href="#">ISD website</a> .
Value type and unit of measurement	Various dental/epidemiological and demographic units of measurement.
Disclosure	The <a href="#">ISD Statistical Disclosure Protocol</a> is followed.
Official Statistics designation	Official Statistics.
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Last published	29 <sup>th</sup> October 2013.
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## **A9 – Early Access details (including Pre-Release Access)**

### **Pre-Release Access**

Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", ISD are obliged to publish information on those receiving Pre-Release Access ("Pre-Release Access" refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access and, separately, those receiving extended Pre-Release Access.

#### **Standard Pre-Release Access:**

Scottish Government Health Department  
 NHS Board Chief Executives  
 NHS Board Communication leads

#### **Extended Pre-Release Access**

Extended Pre-Release Access of 8 working days is given to a small number of named individuals in the Scottish Government Health Department (Analytical Services Division). This Pre-Release Access is for the sole purpose of enabling that department to gain an understanding of the statistics prior to briefing others in Scottish Government (during the period of standard Pre-Release Access).

Scottish Government Health Department (Analytical Services Division)

## A10 – ISD and Official Statistics

### About ISD

Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

Information Services Division (ISD) is a business operating unit of NHS National Services Scotland and has been in existence for over 40 years. We are an essential support service to NHSScotland and the Scottish Government and others, responsive to the needs of NHSScotland as the delivery of health and social care evolves.

**Purpose:** To deliver effective national and specialist intelligence services to improve the health and wellbeing of people in Scotland.

**Mission:** Better Information, Better Decisions, Better Health

**Vision:** To be a valued partner in improving health and wellbeing in Scotland by providing a world class intelligence service.

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Information Services Division (ISD) is the principal and authoritative source of statistics on health and care services in Scotland. ISD is designated by legislation as a producer of 'Official Statistics'. Our official statistics publications are produced to a high professional standard and comply with the Code of Practice for Official Statistics. The Code of Practice is produced and monitored by the UK Statistics Authority which is independent of Government. Under the Code of Practice, the format, content and timing of statistics publications are the responsibility of professional staff working within ISD.

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- National Statistics (ie legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (ie still to be assessed by the UK Statistics Authority)
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- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

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