

Publication Report



Dental Statistics – HEAT Target H9: Fluoride varnishing for 3 and 4 year olds

(Data as at 31 March 2014)

Publication date – 27 January 2015



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Introduction

Background

This release reports the progress of Fluoride Varnishing (FV) applications to children's teeth, one of the interventions developed as part of the *Childsmile* programme. The publication covers the financial years 2012/13 and 2013/14 to enable comparisons to be made.

Policy

The [Action Plan for Modernising Dental Services in Scotland \(2005\)](#) prioritised a prevention programme focusing on improving the oral health of young children, and in reducing oral health inequalities in dental health and improving access to dental services. As part of this, priority groups were established, namely: Children, Older Adults, Special Needs groups, Homeless and Prisoners.

Childsmile Programme

[Childsmile](#) is the national child oral health improvement programme, funded by the Scottish Government, which developed from two national demonstration programmes (2006-08) laid out within the report. *Childsmile* is designed to improve the oral health of children in Scotland and to reduce inequalities in dental health and in access to dental services, which aligns with the aims in the Action Plan. It consists of the following main components:

- *Childsmile* Core – making sure children brush regularly with a fluoride toothpaste.
- *Childsmile* Nursery and School – preventative dental care is provided in the nursery and school settings by mobile clinical teams, focusing on children living in the most deprived local quintiles as defined by the Scottish Index of Multiple Deprivation ([SIMD](#)) within each NHS Board.
- *Childsmile* Practice – community support, oral health promotion and clinical caries prevention delivered by the dental team in the practice.

In 2008, the interim demonstration phase began, resulting in the roll out across all NHS Boards, of a fully integrated *Childsmile* model by 2011.

Fluoride Varnishing

The [Scottish Dental Clinical Effectiveness Programme](#) (SDCEP) [Prevention and Management of Dental Caries in Children](#) recommends that [Childsmile](#) practices provide fluoride varnishing (FV) applications to the teeth of all children from the age of two years, at six monthly intervals. FV can be given by dentists in NHS dental practices, and they are remunerated for providing this service to children, or historically by the Community Dental Service (CDS). For further explanation around how NHS dental services are configured in Scotland please see the [Registration & Participation](#) report.

It should also be applied twice yearly in priority nurseries and schools by Extended Duty Dental Nurses (EDDN) as part of the *Childsmile* Nursery and School programme, where the priority nurseries and schools are selected on the basis of children attending from

disadvantaged areas, determined using the SIMD definition (generally those practices serving the more deprived areas in a community).

Duraphat® is the fluoride varnish preventative measure licensed for caries prevention in the UK and used in the [Childsmile](#) programme. FV is shown to be effective in reducing tooth decay in children when used in combination with brushing teeth regularly with fluoride toothpaste.

Heat Target H9

The recorded clinical FV application activity has been monitored under the Scottish Government's [HEAT target](#) since April 2010, and the target end date was to the end of March 2014. The target was:

“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”.

The target covered FV applications carried out in nurseries, schools and dental practices. Data from each of these settings were consolidated across the different settings using data linkage so that each child is only counted once, within the time period of interest.

The FV data was uploaded to the HEAT dashboard, which is a tool used to access the suite of HEAT reports used by the Scottish Government and NHS Boards. As with other HEAT data, FV data was updated quarterly, with each upload displaying the previous twelve month's data.

Although the HEAT target has now ended, routine monitoring and reporting of FV applications will continue.

Key points

- Two NHS Boards (NHS Lanarkshire and NHS Shetland) met the H9 HEAT target of 60% of children aged three years old and those aged four years old receiving two or more FV treatments in 2013/14 for all quintiles of deprivation.
- There has been an increase in the number of children receiving FV treatment across Scotland, and within each of the NHS Boards.
- The data shows a clear deprivation gradient within Scotland and in the majority of the NHS Boards, with children in the most deprived quintiles most likely to receive FV.
- Nationally the total number of 3 year old children receiving two or more FV treatments has increased from 12,192 in 2012/13 to 19,320 in 2013/14.
- Nationally the total number of 4 year old children receiving two or more FV treatments has increased from 13,068 in 2012/13 to 21,235 in 2013/14.

Methodology

Key Definitions

Data reported

The HEAT target covers FV applications carried out in dental practices, nurseries and schools. As a result, data is collected from separate sources – further detail is provided below:

MIDAS

Management Information & Dental Accounting System (MIDAS), the computerised payment system for the General Dental Service (GDS) and Public Dental Service (PDS) dentists, processes information on dental activity with an NHS dentist in a dynamic database that changes daily. (NOTE: from 01 January 2014, the Salaried and Community Dental Service (CDS) merged to become the PDS. For further explanation around how NHS dental services are configured in Scotland please see the [Registration & Participation](#) report).

The data from MIDAS is based on valid claims for fluoride varnish treatments made by dentists under the *Childsmile* scheme and subsequently paid for by [Practitioner Service Division](#) (PSD; now part of Practitioner & Counter Fraud Services). This data is extracted by ISD.

Please note, historically, for the historical Community Dental Service (CDS), the claim forms would be sent to a local administrator in the NHS Board, who would collate the data for the NHS Board and pass to the *Childsmile* database administrator at the Glasgow Dental Hospital and School on a quarterly basis. This was because CDS practitioners did not have a list number and were unable to submit the forms directly to PSD. The database administrator processed and collated the information into a single format, as required by ISD. However, from 01 January 2014, both salaried GDS and CDS have amalgamated under the new Scottish Public Dental Service (PDS) with all claim forms being submitted to PSD and as a result, collected in MIDAS. Therefore the *Childsmile* database administrator is no longer collecting claim forms and forwarding to ISD.

Health Informatics Centre

Data is collected by the Health Informatics Centre (HIC) on *Childsmile* nursery and school activity. The data is captured through a *Childsmile@HIC* application, which stores the information within a secure NHS Hosted HIC database. The list of children come in a few different ways depending on the local NHS Board, the data can be entered directly in the system by *Childsmile* staff or loaded by HIC from a data file securely received by the NHS Board from the local council.

The data is processed into a different format for submission to ISD, but the application provides a significant amount of the cleaning process at the point of entry. Other quality control issues are flagged up to the staff through the administration website and they then resolve these through the system. This data is sent to ISD on a quarterly basis.

Data from MIDAS and HIC are consolidated by ISD, using data linkage to ensure each child is counted only once, within the time period of interest. This collated data is then used in the analysis.

Data in this publication are presented at both Scotland and NHS Board level, covering FV application for 3 and 4 year old children resident in Scotland or NHS Board who received the treatment during financial years 2012/13 and 2013/14.

Geography

NHS Board

To be consistent with the HEAT target reporting, the 2006 NHS Board boundaries have been used throughout this publication.

Data zones

'2001 data zones' are small geographical areas, first introduced in 2004, and based on the 2001 Census. They were designed to have a fairly consistent population size of between 500 and 1,000 household residents. Over time, the shift in populations has meant this was no longer the case for some areas. Data zones are used as a 'building block' for higher level geographies such as NHS Boards and can be grouped together using 'best-fit' mappings.

Please note: data zone boundaries have been re-drawn in 2014, based on the 2011 Census (known as '2011 data zones'). The '2011 data zones' have not been used within this publication because the corresponding population estimates for these boundaries have not yet been published.

SIMD

The Scottish Index of Multiple Deprivation (SIMD) is the Scottish Government's official tool for identifying areas in Scotland concentrations of deprivation by incorporating several different aspects of deprivation (multiple-deprivation) and combining them into a single index. For the purposes of this report, the data zone of a child is obtained from the postcode of their home address, using the NRS postcode extract. Each data zone is assigned to a SIMD quintile. SIMD quintiles categorise the data into five groups from 1 (most deprived) to 5 (least deprived). This can be done in two ways; non-population weighted quintiles (this is the preferred method of the Scottish Government) and population weighted quintiles (this is the preferred method of ISD).

In addition, SIMD quintiles can be calculated at the Scotland or within NHS Board level. There are advantages to both methods. Scotland quintiles are used to compare different areas within Scotland on an equal basis. Within NHS Board quintiles are used to look at health patterns in a local area in more detail and to ensure there are data zones falling into each quintile category. **Within NHS Board results should not be compared against Scotland results.**

For the purposes of this report, the following terminology will be used:

“non-population weighted 2012 SIMD” will refer to the Scottish Government 2012 SIMD non-population weighted quintiles. Analysis will be presented at both Scotland and NHS board level. Further details of these are given below:

- Scotland non-population weighted 2012 SIMD – All data zones in Scotland are ranked from 1 (most deprived) to 6,505 (least deprived) and split into five deprivation quintiles with 20% of the data zones in each quintile.
- Within NHS Board non-population weighted 2012 SIMD - Data zones in each NHS Board are ranked from most to least deprived and split into five deprivation quintiles with 20% of the data zones in each NHS Board in each quintile.

“population weighted 2012 SIMD” will refer to the ISD 2012 SIMD population weighted quintiles. Analysis will be presented at both Scotland and NHS Board level. Further details of these are given below:

- Scotland population weighted 2012 SIMD - All data zones in Scotland are ranked from 1 (most deprived) to 6,505 (least deprived) and split into five deprivation quintiles with approximately 20% of the Scotland population in each quintile.
- Within NHS Board population weighted 2012 SIMD - Data zones in each NHS Board are ranked from most to least deprived and split into five deprivation quintiles with approximately 20% of the NHS Board population in each quintile.

Depending on the method used to split the SIMD up into quintiles, the quintile allocated to the child in the analysis may differ. Over time, as a result of population shift noted previously, there is more likelihood of a divergence between the non-population weighted SIMD compared with the population weighted method.

Please note: If a child moves house during the period of the iteration reported here, the SIMD associated with a child's 1st fluoride varnish may differ from the SIMD associated with that child's subsequent fluoride varnish(es). In such cases, ISD counts the child as having any subsequent fluoride varnishes at the SIMD associated with the child's home address of the first fluoride varnish.

The overall Scotland figures broken down by deprivation quintiles are presented in this report, as well as the deprivation-level data within each NHS Board. **Note: comparisons of these different deprivation measures cannot be made as they do not represent the same categories. Also no comparisons can be made between NHS Boards when using the within NHS Board SIMDs.**

Population estimates

National Records of Scotland (NRS) mid-year Small Area Population Estimates (SAPE) have been used in the calculations for this publication. For consistency, all mid-year population estimates used are based on the most recently available NRS mid-year population estimates as noted in the table that follows:

Time period	Geography Used	Mid-year population estimates
1 April 2013 – 31 March 2014	‘2001 data zones’	2013
1 April 2012 – 31 March 2013	‘2001 data zones’	2012

The population estimates for both Scotland level and within-NHS Board level SIMD 2012 quintiles have been obtained by aggregating the population estimates of the data zones assigned to each of these categories.

The population estimates for the numbers of three and four year olds should be treated with some caution as there are some potential issues which may arise when using the estimates as denominators for the FV percentages. These include the following:

- Short term migrants who had not been accounted for in the estimated population (which was based on the 2011 census) may be registered with an NHS dentist and therefore counted in the numerator.
- The population is based on mid-year estimates. As a result, a patient counted in the population estimate (denominator) may have a birthday after the mid-year and will therefore be counted in the next year within the numerator. This is illustrated with the following example: the denominator for three year old children may have missed some two year olds who turned three after the mid-year population estimate was taken, which would result in the three year old population being lower than expected. However, it may include some four year old children when the FV application was provided, but they are included in the three year old mid-year estimate populations. Similarly, for the four year old populations. This may account for some estimates exceeding 100%.

Please note; Scotland and NHS Board population estimates have been obtained by aggregating the data zone population estimates and using the ‘best-fit’ data zone to NHS Board mapping. Data zones do not nest exactly into NHS Board areas and so are assigned to an NHS Board.

Calculation of the FV measure

For each SIMD category, within a location of interest (e.g. Scotland or NHS Board), the percentage of children who had two or more FV treatments, within the financial year of interest, is calculated using the formula:

$$\frac{\text{No of unique children who received } \geq 2 \text{ FV treatments of a particular age}}{\text{NRS mid-year population estimate for age group of interest}} \times 100$$

In addition, the absolute difference in terms of percentage points is presented in the report. This is defined as:

$$2013/14 \text{ percentage} - 2012/13 \text{ percentage}$$

Note: the tables in the report present the breakdown by age and SIMD category, along with a total for each. This total number of unique children who received two or more FV treatments for the age group of interest will remain the same, as will the total population estimates for the age group of interest, resulting in the total percentages remaining the same regardless as to which SIMD methodology is reported – these are displayed in bold font within the analysis tables in the appendices. However, the distribution across the SIMD quintiles within each of the age groups will mainly vary due to the different methods of calculating deprivation, as noted in the Section on SIMD Methodology.

Changes to the publication

NRS Populations

The NRS mid-year population estimates used for the HEAT dashboard reporting are correct, as they were aggregated from the most up-to-date NRS mid-year small area population estimates available at the time of interest. However, the 2012 mid-year small area population estimates were used for 2013/14 period, and the 2011 mid-year small area population estimates were used for 2012/13. The reason for this slight timeframe misalignment is due to the timing of the release of NRS mid-year small area estimates. The 2013 NRS mid-year small area population estimates were released after the publication of the March 2014 HEAT target results, but are available in time for this publication and as a result, they are incorporated into the percentage analysis reported here for both SIMD methodologies. In addition, the 2012/13 percentages have also been re-calculated using the 2012 NRS mid-year small area population estimates, which are also now available, to enable a more accurate comparison. Please note this change has no impact on the raw number of children receiving two or more FV treatments.

SIMD Change

HEAT Dashboard - Background

In August 2014, the Scottish Government requested that FV reporting for the HEAT target reflect the non-population weighted 2012 SIMD measure in order to align with reporting of other Scottish Government HEAT targets. As a result, the non-population weighted 2012 SIMD categorisation was used to analyse FV figures for the final reporting of the HEAT target and uploaded to the HEAT dashboard. Note: this change only affected the final HEAT dashboard reporting for 31 March 2014, covering the period 1 April 2013 – 31 March 2014. The data reported previously, up to and including December 2013 had been reported using the population weighted 2012 SIMD methodology.

Prior to agreeing to the shift in SIMD methodology ISD performed analytical checks to ensure there would be no material impact on the overall results in terms of NHS Boards achieving the target in terms of the HEAT dashboard.

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Given this change in the SIMD methodology used in the HEAT dashboard, it was no longer possible (within a particular NHS Board of interest) to compare the percentage of children receiving two or more FV treatments from an earlier time point with the final results from March 2014. This comparison was one of the key aspects in determining if the HEAT target resulted in an overall improvement within a particular NHS Board of interest.

Therefore, to aid the reader, data for both 2012/13 and 2013/14 have been calculated under both SIMD methodologies for the purpose of this publication and are presented here in [Appendix A1](#) (under the non-population weighted 2012 SIMD) and [Appendix A2](#) (under the population weighted 2012 SIMD). As noted previously, comparisons of these different deprivation measures cannot be made as they do not represent the same categories. **Also no comparisons can be made between NHS Boards when using the within NHS Board SIMDs (for either measure).**

For the purposes of this publication, the main focus is on the non-population weighted 2012 SIMD analysis, to enable comparisons to be made between the time points and also to enable conclusions to be drawn.

The results from the population weighted 2012 SIMD have been included for transparency to show that the shift in SIMD methodology did not affect the overall results in terms of which NHS Boards met the HEAT target.

Results and Commentary

The table and figures presented in the results section, are based on the non-population weighted 2012 SIMD.

Use of FV within Scotland

Around a third of children aged 3 (33%) and 4 (36%) year old had two or more FV treatments, carried out in nurseries, schools and dental practices, during the period 1 April 2013 to 31 March 2014 ([Table 1](#)). These represent increases of around an extra 7,000 three year olds, and an extra 8,000 four year olds, respectively, having two or more FV treatments in 2013/14 than in 2012/13 ([previous publication](#)).

Table 1: Use of FV treatments in Scotland, using Scotland non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14

Age	Scotland SIMD (2012) Quintile	Children who had 2 or more FV treatments				
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	4,073	5,615	29.7%	42.8%	13.1%
	2	2,759	4,302	23.9%	37.9%	14.0%
	3	2,135	3,671	18.4%	32.5%	14.0%
	4	1,894	3,265	16.1%	28.4%	12.4%
	5 = least	1,215	2,304	11.2%	21.5%	10.3%
	Unknown	116	163	-	-	-
	Total	12,192	19,320	20.5%	33.3%	12.8%
4	1 = most	5,008	6,738	37.4%	49.8%	12.4%
	2	2,889	4,873	25.3%	42.7%	17.4%
	3	2,143	3,996	18.7%	34.6%	15.9%
	4	1,711	3,242	14.4%	27.3%	12.9%
	5 = least	1,128	2,186	10.1%	19.5%	9.4%
	Unknown	189	200	-	-	-
	Total	13,068	21,235	22.0%	35.6%	13.6%
Combined 3 and 4	Total	25,260	40,555	21.3%	34.5%	13.2%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Scotland non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones from most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the data zones in each quintile
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 2a and Table 2b

Overall the absolute difference in the percentage of children aged 3 and 4 years receiving FV treatment has increased between 2012/13 and 2013/14 by around 13 percentage points.

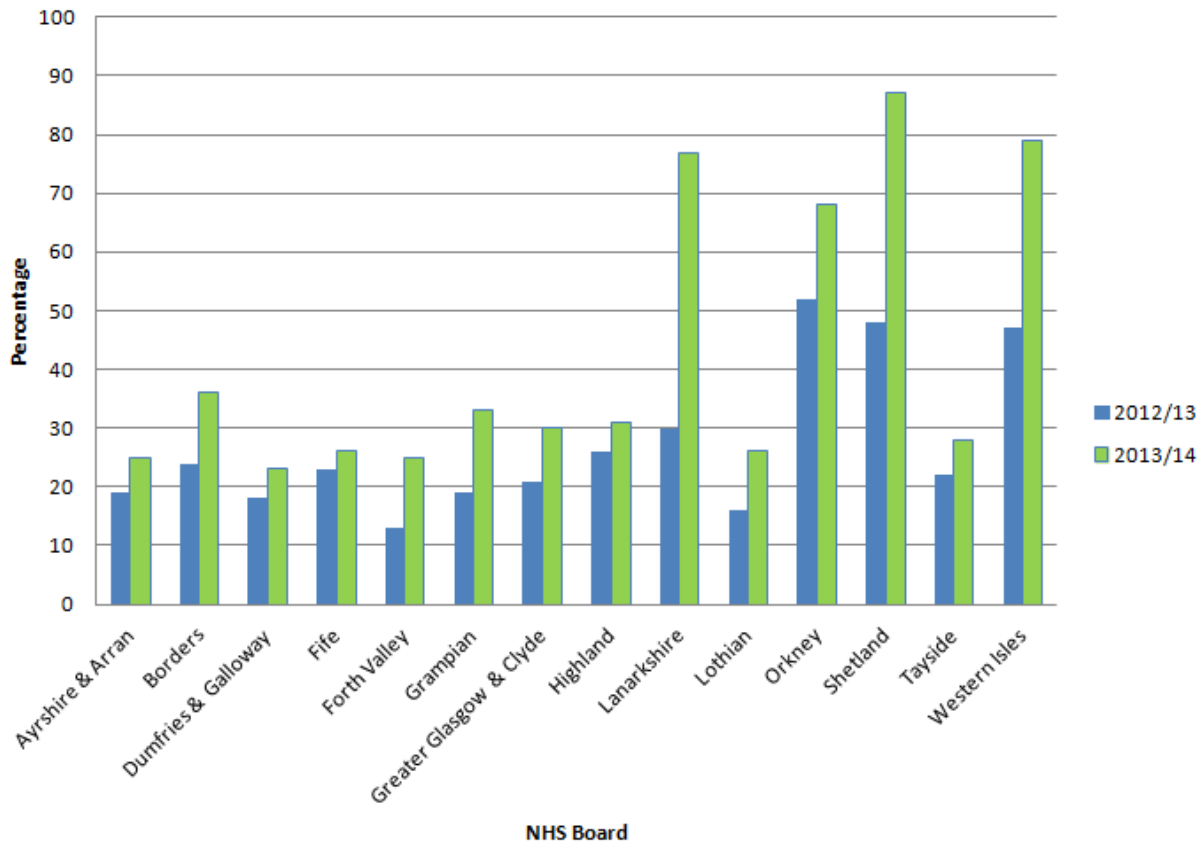
Children from the most deprived SIMD quintile continue to be most likely to receive two or more FV treatments, with obvious deprivation gradients for both ages. This is likely to be partly due to the focus on delivering FV treatments to the more deprived SIMD quintiles through nurseries and schools.

Use of FV within NHS Boards

Combined Data

There was an increase in children receiving FV treatment for all NHS Boards since last year ([Figure 1](#)).

Figure 1: Total percentages of children 3 year old and 4 year old who had two or more FV treatments by NHS Board: Financial Years 2012/13 and 2013/14



Source: ISD, MIDAS and Health Information Centre (HIC).

The size of improvement varies across the NHS Boards between the two years. In terms of the absolute difference, NHS Fife, for example, shows a small increase of about 3 percentage points, whereas NHS Lanarkshire shows an increase of around 47 percentage points.

H9 HEAT Target

NHS Lanarkshire and NHS Shetland met the H9 HEAT Target of 60% of children getting two or more FV applications for both three year olds and four year olds in 2013/14 ([Figure 2](#)).

NHS Lanarkshire met the 60% HEAT target within each SIMD deprivation quintile for both children aged 3 years old and 4 years old in 2013/14. Previously, in 2012/13 the target was not met in any category.

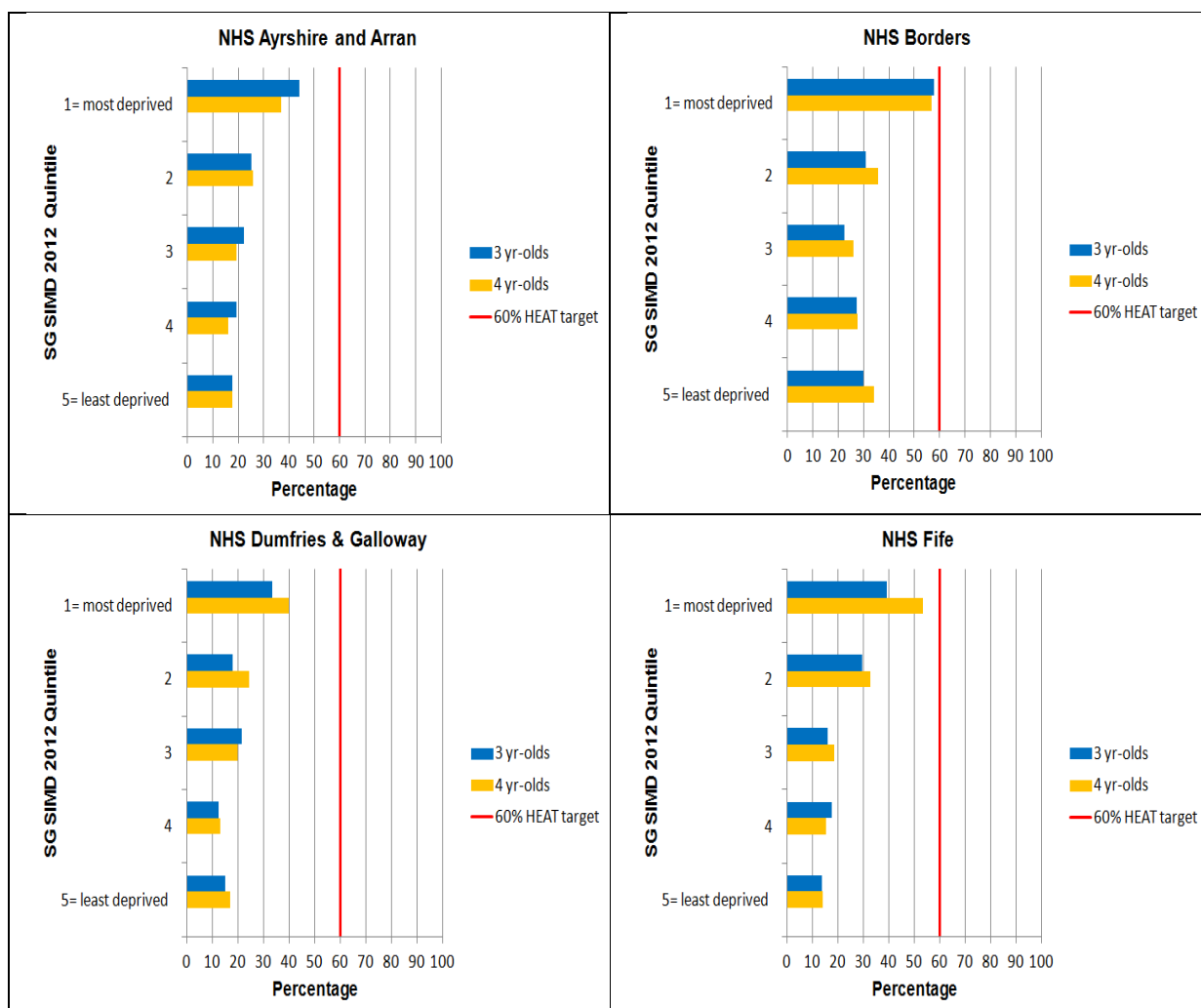
NHS Shetland also reached the 60% target for all SIMD deprivation quintiles for both age groups in 2013/14. This is also an improvement from the previous year (2012/13) when only 3 year olds within SIMD quintile 1 reached the target.

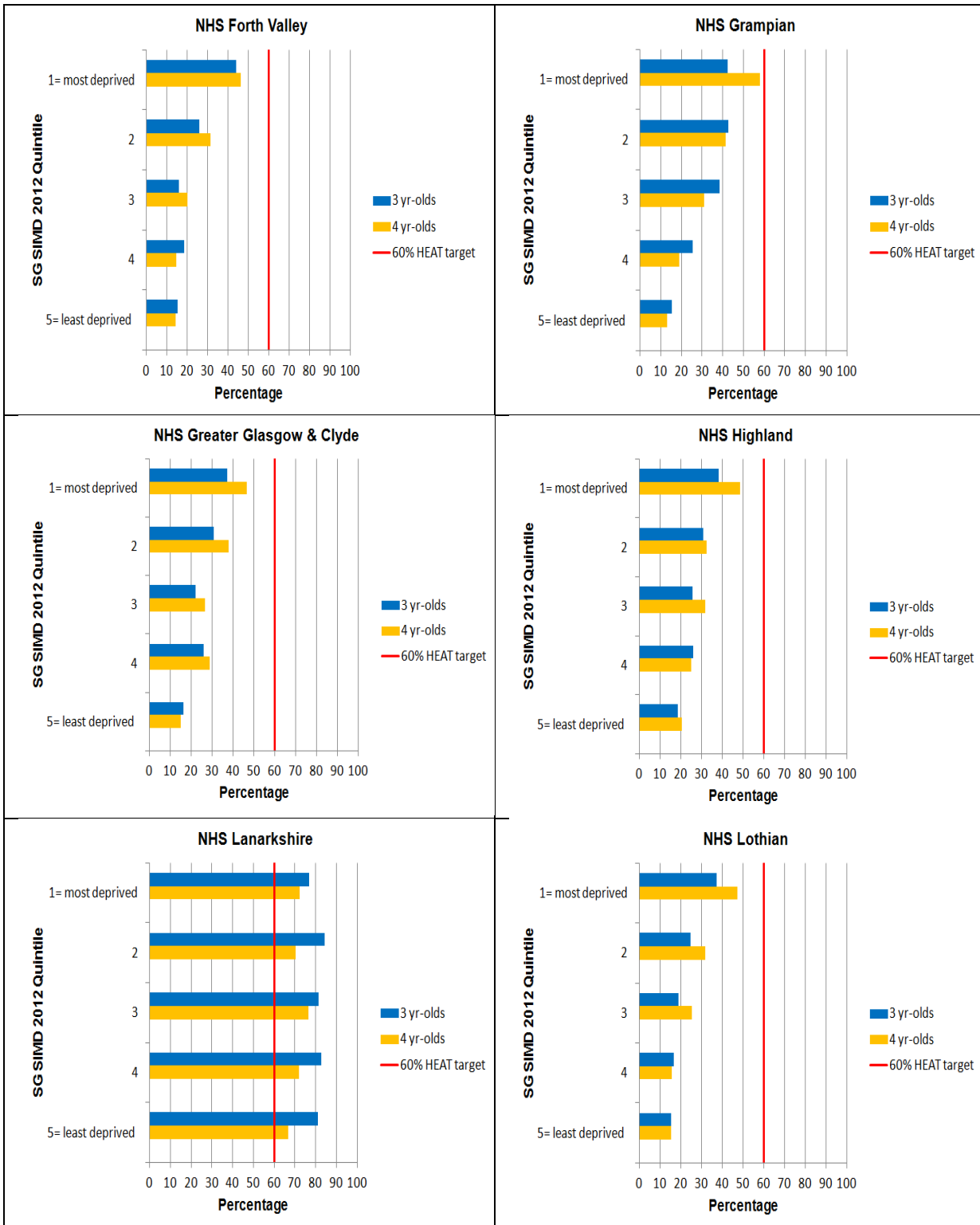
NHS Orkney achieved the target for SIMD quintiles 1, 2 and 4 for the 4 year olds, in 2012/13, but this increased to all SIMD quintiles for the 4 year old age group, and quintiles 1 and 3, for the 3 year old age group in 2013/14.

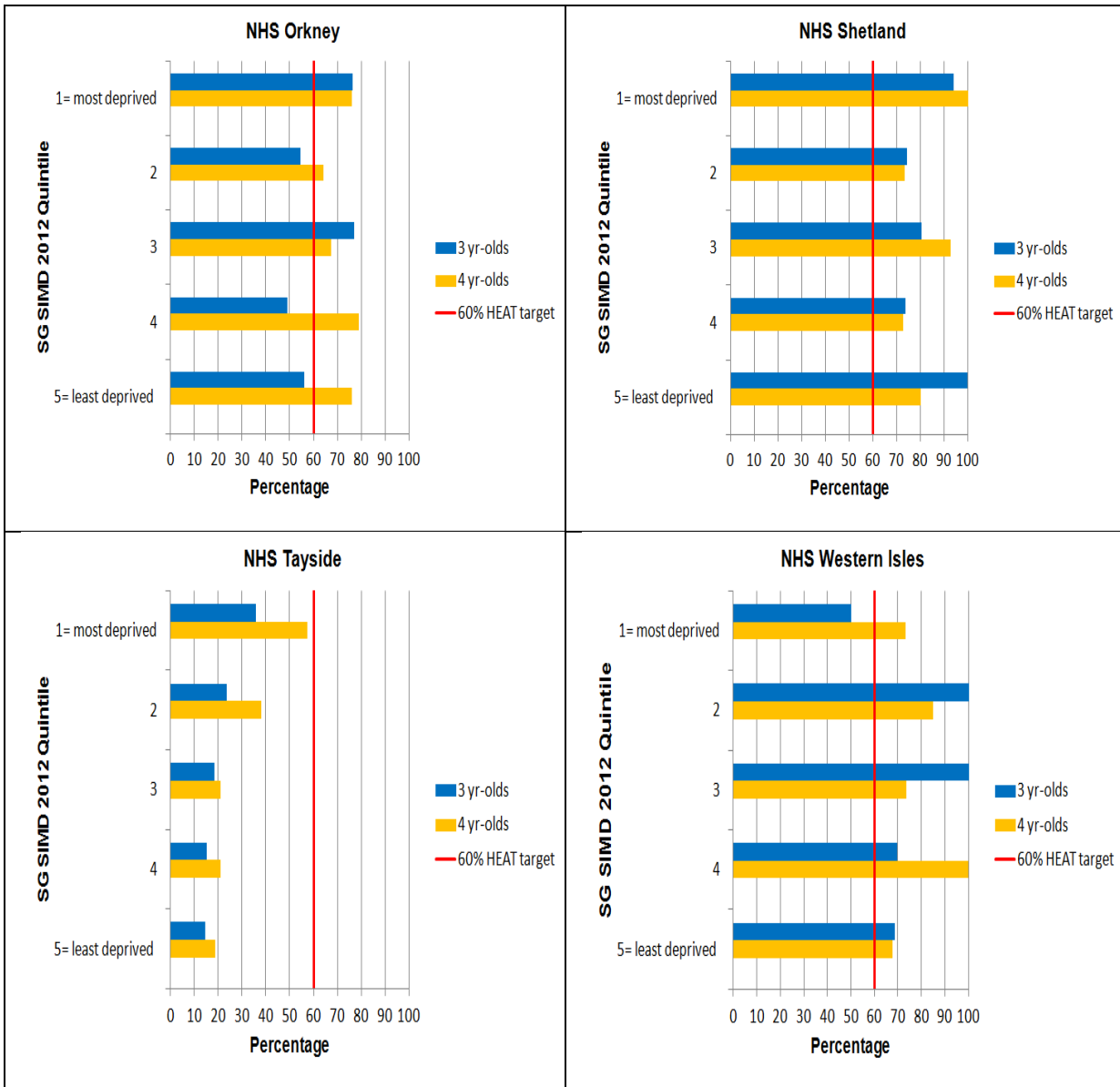
NHS Western Isles also improved upon the previous year. The target is achieved in all age and deprivation categories except from 3 year olds within SIMD quintile 1.

Figure 2 provides a detailed look at the 2013/14 results by SIMD quintile. All supporting data tables can be found in Appendix A1, with a further breakdown provided in Table 3a and Table 3b.

Figure 2: Total percentages of children aged 3 year old and 4 year old who had two or more FV treatments by NHS Board, using Within NHS Board non-population weighted 2012 SIMD: Financial Year 2013/14







Source: ISD, MIDAS and Health Information Centre (HIC).

As previously mentioned, one of the aims of the *Childsmile* programme is to focus on children living in the most deprived local quintile (SIMD quintile 1). As can be seen from [Figure 2](#), most NHS Boards indeed have the highest use of FV in this quintile.

Results for population weighted 2012 SIMD analysis

For transparency, the FV results are also presented using the population weighted SIMD methodology, for both financial years; 2012/13 and 2013/14 in [Appendix A2](#). Further breakdowns can be found in [Table 4a](#) and [Table 4b](#) (Scotland population weighted SIMD) and [Table 5a](#) and [Table 5b](#) (Within NHS Board population weighted SIMD).

Note: Strict comparisons of the non-population weighted and population weighted deprivation measures cannot be made as the SIMD does not represent the same categories.

Although there is variation in the numbers and percentages of children receiving FV treatment between the two SIMD methodologies, this does not affect the overall results.

Under both SIMD measures only NHS Lanarkshire and NHS Shetland met the 60% HEAT target.

Conclusions

NHS Lanarkshire and NHS Shetland met the H9 HEAT target of 60% of children aged three years old and those aged four years old receiving two or more FV treatments in 2013/14 for all SIMD quintiles.

There has been an increase in children receiving FV treatment across Scotland and within each of the NHS Boards.

As a result of the focus on the more deprived areas, the data shows a clear deprivation gradient within Scotland and in the majority of the NHS Boards, with children living in the most deprived quintiles (SIMDs 1 and 2) being most likely to receive FV.

The conclusions are apparent within both sets of analysis; using the non-population weighted 2012 SIMD and the population weighted 2012 SIMD quintiles held within Appendices [A1](#) and [A2](#).

Based on current figures over the previous few years, FV application should continue to increase in Scotland. However, wide variation exists between the NHS Boards and it is important there is ongoing monitoring of the use of FV to ensure that use of this intervention of proven benefit is adopted more widely and equitably across Scotland.

Glossary

CDS	<p>Community Dental Service</p> <p>CDS provided a 'safety net' dental service for people who were unable to obtain care through the GDS. From 1 January 2014 the salaried dental service merged with the CDS to become the Public Dental Service (PDS)</p>
EDDN	<p>Extended Duty Dental Nurses</p> <p>Dental Nurses are trained in oral health promotion and fluoride varnish application to support the dental team to provide <i>Childsmile</i> care.</p>
FV	<p>Fluoride Varnish</p> <p>Application of FV to children's teeth in Dental practices, Nurseries and Schools as part of the <i>Childsmile</i> programme</p>
GDS	<p>General Dental Service</p> <p>The General Dental Service is the main primary care dental service and the majority of dentists are independent contractors who have arrangements with NHS Boards to provide GDS.</p>
HIC	<p>Health Informatics Centre (University of Dundee)</p> <p>Collect data on <i>Childsmile</i> nursery and school activity</p>
HEAT	<p>Health Improvement, Efficiency, Access and Treatment</p> <p>Standards which contribute towards delivery of the Scottish Government's Purpose and National Outcomes; and NHS Scotland's Quality Ambitions.</p>
MIDAS	<p>Management Information & Dental Accounting System</p> <p>Computerised payment system for GDS and PDS dentists.</p>
NRS	<p>National Records for Scotland</p> <p>2013/14 - Data source for denominator is 2013 mid-year population estimates based on 2011 created by NRS</p> <p>2012/13 – Data source for denominator is 2012 mid-year population estimates based on 2011 created by NRS</p>
PDS	<p>Public Dental Service</p> <p>From 1 January 2014 the salaried dental service merged with the CDS to become the Public Dental Service (PDS).</p> <p>Throughout this publication, 'PDS' will be used when referring to 'PDS (salaried GDS (not including CDS) prior to Jan 14 and Salaried and CDS for Jan 14 onwards)'. </p>
SAPE	<p>Small Area Population Estimates</p> <p>Released by NRS</p>
SDCEP	<p>Scottish Dental Clinical Effectiveness Programme</p> <p>Supports dental teams throughout Scotland by providing guidance developed by the profession for the profession on topics identified as priorities for dentistry in Scotland</p>
SIMD	<p>Scottish Index of Multiple Deprivation</p> <p>Scotland non-population weighted 2012 SIMD</p>

	<ul style="list-style-type: none">○ Five deprivation quintiles with 20% of the data zones in each quintile. <p>Within NHS Board non-population weighted 2012 SIMD</p> <ul style="list-style-type: none">○ Five deprivation quintiles with 20% of the data zones in each NHS Board in each quintile. <p>Scotland population weighted 2012 SIMD</p> <ul style="list-style-type: none">○ Five deprivation quintiles with approximately 20% of the Scotland population in each quintile. <p>Within NHS Board population weighted 2012 SIMD</p> <ul style="list-style-type: none">○ Five deprivation quintiles with approximately 20% of the NHS Board population in each quintile.
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List of Tables

Table No.	Name	Time period	File & size
1	Use of FV treatments in Scotland, using Scotland non-population weighted 2012 SIMD	Financial years 2012/13 and 2013/14	Excel – 12kb
2a	Number and percentage of children aged 3 yr and 4 yr old who had two or more FV treatments by Scotland non-population weighted 2012 SIMD	April 2012 – March 2013	Excel – 14kb
2b	Number and percentage of children aged 3 yr and 4 yr old who had two or more FV treatments by Scotland non-population weighted 2012 SIMD	April 2013- March 2014	Excel – 14kb
3a	Number and percentage of children aged 3 yr and 4 yr old who had two or more FV treatments within NHS Boards, using Within NHS Board non-population weighted 2012 SIMD	April 2012- March 2013	Excel – 27kb
3b	Number and percentage of children aged 3 yr and 4 yr old who had two or more FV treatments within NHS Boards, using Within NHS Board non-population weighted 2012 SIMD	April 2013- March 2014	Excel – 27kb
4a	Number and percentage of children aged 3 yr and 4 yr old who had two or more FV treatments by Scotland population weighted 2012 SIMD	April 2012- March 2013	Excel – 14kb
4b	Number and percentage of children aged 3 yr and 4 yr old who had two or more FV treatments by Scotland population weighted 2012 SIMD	April 2013- March 2014	Excel – 14kb
5a	Number and percentage of children aged 3 yr and 4 yr old who had two or more FV treatments within NHS Boards, using Within NHS Board population weighted 2012 SIMD	April 2012- March 2013	Excel – 27kb
5b	Number and percentage of children aged 3 yr and 4 yr old who had two or more FV treatments within NHS Boards, using Within NHS Board population weighted 2012 SIMD	April 2013- March 2014	Excel – 27kb

List of Figures

Figure No.	Name	Time period	File & size
1	Total percentages of children aged 3 yr old and 4 yr old who had two or more FV treatments	2012/13 – 2013/14	Excel – 15kb
2	Total percentages of children aged 3 yr old and 4 yr old who had two or more FV treatments by SG within NHS Board SIMD	2013/14	Excel – 61 kb

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Appendix

A1 – FV analysis by non-population weighted 2012 SIMD

Table A1.1 Use of FV treatments within NHS Ayrshire & Arran, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	306	394	30.1%	44.2%	14.1%
	2	121	193	15.2%	25.1%	9.9%
	3	94	174	13.3%	22.4%	9.1%
	4	116	146	14.0%	19.4%	5.4%
	5 = least	85	111	12.6%	17.8%	5.2%
	Unknown	6	8	-	-	-
	Total		728	1,026	18.1%	26.9%
4	1 = most	369	360	38.9%	36.9%	-2.0%
	2	144	207	17.3%	25.8%	8.5%
	3	91	138	11.8%	19.4%	7.6%
	4	92	137	11.4%	16.0%	4.6%
	5 = least	79	122	12.0%	17.6%	5.6%
	Unknown	5	4	-	-	-
	Total		780	968	19.4%	24.0%
Combined 3 and 4	Total	1,508	1,994	18.8%	25.4%	6.6%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 3a and Table 3b.

In NHS Ayrshire & Arran, although there was a slight improvement in the percentage of children receiving FV treatment, the 60% HEAT target was not met (Table A1.1). The distribution of the percentages reflect the national activity, where across the SIMD quintiles the highest percentages are in quintile 1, decreasing in the quintiles associated with lower levels of deprivation. The absolute difference between financial years 2012/13 and 2013/14 was consistent across all deprivation quintiles for both ages except SIMD 1 where it differed (increasing by 14% for 3 year olds and decreasing by 2% for 4 year olds).

Table A1.2: Use of FV treatments within NHS Borders, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health board	Children who had 2 or more FV treatments				
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 pro percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	91	133	35.3%	57.8%	22.6%
	2	39	70	17.3%	30.8%	13.6%
	3	29	44	14.3%	22.6%	8.3%
	4	40	64	15.6%	27.2%	11.6%
	5 = least	34	67	14.5%	29.8%	15.2%
	Unknown	5	2	-	-	-
	Total	238	380	20.2%	34.2%	14.0%
4	1 = most	132	144	52.6%	56.9%	4.3%
	2	66	80	31.1%	35.7%	4.6%
	3	32	54	15.7%	26.1%	10.4%
	4	45	71	17.0%	27.6%	10.6%
	5 = least	41	85	15.5%	34.3%	18.7%
	Unknown	3	5	-	-	-
	Total	319	439	26.7%	36.9%	10.2%
Combined 3 and 4	Total	557	819	23.5%	35.6%	12.1%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 3a and Table 3b.

NHS Borders does not make the 60% HEAT target, although SIMD quintile 1 for both age groups misses out by 2-3% (Table A1.2). In terms of the absolute difference, there has been an increase in the percentage of children receiving FV treatment between the two financial years, most noticeably in SIMD quintile 1 for three year olds (23%). However, for four year old children, the increase seen in SIMD quintile 1 (4%), was less than that in SIMD quintiles 3 to 5.

Table A1.3: Use of FV treatments within NHS Dumfries and Galloway, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	88	118	23.5%	33.5%	10.0%
	2	51	61	15.4%	17.9%	2.5%
	3	34	58	11.5%	21.4%	9.9%
	4	25	31	9.5%	12.4%	3.0%
	5 = least	28	45	10.9%	14.8%	3.9%
	Unknown	3	3	-	-	-
	Total		229	316	15.0%	20.8%
4	1 = most	150	141	40.9%	39.8%	-1.0%
	2	60	79	18.9%	24.5%	5.6%
	3	49	59	16.1%	19.9%	3.9%
	4	19	34	7.6%	12.9%	5.3%
	5 = least	48	47	16.7%	17.0%	0.2%
	Unknown	3	7	-	-	-
	Total		329	367	21.6%	24.3%
Combined 3 and 4	Total	558	683	18.3%	22.5%	4.2%

Source: ISD, MIDAS and Health Information Centre (HIC).

a. The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.

b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.

c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.

d. Further breakdown of data can be found in Table 3a and Table 3b.

Overall there is a small improvement between the two financial years of children receiving FV treatment; however, NHS Dumfries and Galloway does not achieve the target (Table A1.3). The percentage of children receiving FV treatment is varied across the SIMD quintiles, which differs to the clear decrease in percentages throughout the SIMD quintiles at national level. FV treatment for 3 year old and 4 year old children in SIMD quintile 1 was higher than other SIMD groups; however between the two financial years, when looking at the absolute difference, the percentage increased by 10% for 3 year olds, but decreased by -1% for 4 year olds in this SIMD quintile.

Table A1.4: Use of FV treatments within NHS Fife, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14

Age	Health Board	Children who had 2 or more FV treatments				
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	398	404	40.7%	39.2%	-1.5%
	2	212	239	26.1%	29.4%	3.4%
	3	116	138	13.5%	15.8%	2.3%
	4	85	124	12.1%	17.6%	5.5%
	5 = least	89	110	10.4%	13.8%	3.4%
	Unknown	3	7	-	-	-
	Total	903	1,022	21.4%	24.2%	2.8%
4	1 = most	448	511	47.4%	53.3%	6.0%
	2	204	264	27.3%	32.8%	5.5%
	3	154	160	17.5%	18.3%	0.8%
	4	99	111	12.8%	15.4%	2.6%
	5 = least	127	124	14.5%	14.0%	-0.5%
	Unknown	16	9	-	-	-
	Total	1,048	1,179	24.8%	27.8%	3.0%
Combined 3 and 4	Total	1,951	2,201	23.1%	26.0%	2.9%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 3a and Table 3b.

NHS Fife health board does not achieve the 60% HEAT target. The percentages in the SIMD quintiles follow the national activity where SIMD 1 has the highest percentage. There is variation in the absolute difference between financial years 2012/13 and 2013/14. The national trend has been for percentages across all SIMD quintiles to increase between the financial years, however, as shown above, percentages in SIMD quintile 1 for three year olds and SIMD quintile 5 for four year olds move against the trend and decrease over time.

Table A1.5: Use of FV treatments within NHS Forth Valley, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14

		Children who had 2 or more FV treatments				
Age	Health Board	2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	160	287	22.4%	43.9%	21.5%
	2	92	165	14.2%	25.9%	11.7%
	3	78	113	11.6%	15.8%	4.2%
	4	60	125	8.4%	18.6%	10.2%
	5 = least	35	100	5.5%	15.3%	9.8%
	Unknown	3	3	-	-	-
	Total		428	793	12.6%	23.8%
4	1 = most	180	335	25.9%	46.3%	20.5%
	2	88	197	14.8%	31.3%	16.5%
	3	74	134	9.8%	20.0%	10.3%
	4	49	105	6.8%	14.6%	7.8%
	5 = least	58	94	9.1%	14.4%	5.3%
	Unknown	6	6	-	-	-
	Total		455	871	13.4%	25.6%
Combined 3 and 4	Total	883	1,664	13.0%	24.7%	11.7%

Source: ISD, MIDAS and Health Information Centre (HIC).

- a. The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- d. Further breakdown of data can be found in Table 3a and Table 3b.

NHS Forth Valley has seen a substantial increase in the percentage of children receiving FV treatment from 2012/13 to 2013/14 for all SIMD quintiles across both ages. This is most noticeable within SIMD 1, although there is still a way to go to meet the target. The high increase in numbers reflects the trend where more emphasis has been placed on targeting the more deprived quintiles.

Table A1.6: Use of FV treatments within NHS Grampian, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14

		Children who had 2 or more FV treatments				
Age	Health Board	2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and
3	1 = most	409	581	29.4%	42.3%	12.8%
	2	290	537	22.4%	42.6%	20.1%
	3	212	488	17.1%	38.3%	21.2%
	4	155	410	9.8%	25.6%	15.8%
	5 = least	90	174	8.4%	15.3%	6.9%
	Unknown	14	36	-	-	-
	Total		1,170	2,226	17.8%	33.5%
4	1 = most	585	789	42.4%	58.1%	15.7%
	2	316	540	25.1%	41.4%	16.4%
	3	174	384	15.1%	31.0%	15.9%
	4	115	311	7.2%	19.1%	11.8%
	5 = least	77	144	7.1%	13.1%	6.0%
	Unknown	21	24	-	-	-
	Total		1,288	2,192	19.9%	33.0%
Combined 3 and 4	Total	2,458	4,418	18.8%	33.3%	14.5%

Source: ISD, MIDAS and Health Information Centre (HIC).

- a. The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- d. Further breakdown of data can be found in Table 3a and Table 3b.

NHS Grampian did not meet the 60% HEAT target. Overall the percentage of children receiving FV treatment in NHS Grampian increased across all deprivation and age categories. The percentage of four year old children who received FV treatment in the most deprived SIMD quintile missed the HEAT target by less than 2%. The percentages also follow the national trend where SIMD quintile 1 has the highest proportion and SIMD quintile 5 has the lowest.

Table A1.7: Use of FV treatments within NHS Greater Glasgow & Clyde, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	884	1,089	28.7%	37.2%	8.5%
	2	631	830	22.8%	30.8%	8.0%
	3	384	585	15.1%	22.0%	6.9%
	4	399	641	15.8%	25.9%	10.1%
	5 = least	218	396	9.3%	16.4%	7.0%
	Unknown	19	24	-	-	-
	Total		2,535	3,565	19.1%	27.1%
4	1 = most	1,226	1,432	40.2%	46.5%	6.3%
	2	836	1,032	30.7%	37.8%	7.1%
	3	523	661	20.2%	26.5%	6.3%
	4	332	729	13.2%	28.9%	15.7%
	5 = least	179	358	7.3%	14.9%	7.5%
	Unknown	35	34	-	-	-
	Total		3,131	4,246	23.5%	32.1%
Combined 3 and 4	Total	5,666	7,811	21.3%	29.6%	8.3%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 3a and Table 3b.

NHS Greater Glasgow & Clyde did not meet the HEAT target although there has been an improvement in the percentages of children receiving FV treatment. The highest percentage of three year old and four year old children who received FV treatment was in SIMD quintile 1 and this followed the national trend. During the period 2012/13 to 2013/14, in terms of absolute difference, the largest increase in FV treatment was delivered to three and four year old children in SIMD quintile 4.

Table A1.8: Use of FV treatments within NHS Highland, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	295	300	34.7%	38.3%	3.6%
	2	138	202	21.3%	30.8%	9.6%
	3	107	140	20.0%	25.5%	5.5%
	4	143	180	17.4%	25.8%	8.4%
	5 = least	78	103	12.5%	18.4%	5.8%
	Unknown	7	7	-	-	-
	Total	768	932	22.1%	28.7%	6.6%
4	1 = most	401	401	48.5%	48.7%	0.2%
	2	170	212	28.7%	32.3%	3.6%
	3	145	178	24.3%	31.8%	7.5%
	4	155	206	19.9%	25.1%	5.1%
	5 = least	111	127	16.5%	20.4%	3.9%
	Unknown	24	12	-	-	-
	Total	1,006	1,136	29.0%	32.6%	3.6%
Combined 3 and 4	Total	1,774	2,068	25.5%	30.7%	5.2%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 3a and Table 3b.

NHS Highland did not meet the HEAT target. In each of the SIMD quintiles, in terms of absolute difference, there was a slight increase in the percentage of children receiving FV treatment between 2012/13 and 2013/14. The percentages across the SIMD quintiles, in general followed the national trend, where SIMD quintile 1 had the highest percentage and the lowest was recorded from the SIMD 5 quintile.

Table A1.9: Use of FV treatments within NHS Lanarkshire, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	602	1,086	42.0%	76.7%	34.7%
	2	509	1,041	38.9%	84.4%	45.5%
	3	543	1,103	39.3%	81.4%	42.1%
	4	483	1,070	35.0%	82.8%	47.8%
	5 = least	496	983	40.2%	81.0%	40.8%
	Unknown	21	30	-	-	-
	Total	2,654	5,313	39.4%	81.6%	42.2%
4	1 = most	478	1,030	33.4%	72.3%	38.9%
	2	245	917	19.2%	70.3%	51.1%
	3	251	1,068	17.4%	76.6%	59.2%
	4	219	1,000	16.0%	72.0%	56.0%
	5 = least	236	818	18.6%	66.7%	48.0%
	Unknown	19	39	-	-	-
	Total	1,448	4,872	21.4%	72.3%	50.9%
Combined 3 and 4	Total	4,102	10,815	30.3%	76.9%	46.6%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 3a and Table 3b.

In NHS Lanarkshire there was considerable improvement in the numbers of children receiving FV treatment between 2012/13 and 2013/14 which resulted in all SIMD quintiles for both ages meeting the 60% HEAT target. NHS Lanarkshire has seen the biggest improvement of all the boards between 2012/13 (where the target was not met in any of the SIMD quintiles for either age group) and 2013/14, where the percentage of children for both ages who received FV treatment has more than doubled. NHS Lanarkshire does not follow the national trend as there is no obvious pattern in which SIMD quintile has the most FV treatments in the two ages.

Table A1.10: Use of FV treatments within NHS Lothian, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	573	831	23.1%	37.1%	14.1%
	2	280	460	14.3%	24.6%	10.3%
	3	240	409	11.2%	18.9%	7.6%
	4	154	266	8.6%	16.6%	8.0%
	5 = least	135	246	8.2%	15.3%	7.1%
	Unknown	23	24	-	-	-
	Total		1,405	2,236	14.0%	23.6%
4	1 = most	732	1,170	30.8%	47.4%	16.6%
	2	340	607	17.9%	31.8%	13.8%
	3	272	537	13.2%	25.3%	12.1%
	4	200	285	10.9%	15.7%	4.8%
	5 = least	153	257	9.0%	15.3%	6.3%
	Unknown	34	35	-	-	-
	Total		1,731	2,891	17.6%	28.9%
Combined 3 and 4	Total	3,136	5,127	15.8%	26.3%	10.5%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 3a and Table 3b.

The 60% HEAT target for FV delivery for NHS Lothian was not achieved in 2013/14. The highest percentage of FV delivery to three year old and four year old children, for both 2012/13 and 2013/14, was observed in SIMD quintile 1. This follows the national trend - lower percentages were observed in the other SIMD quintiles. In absolute terms, the greatest increase in FV delivery between 2012/13 and 2013/14 were observed in SIMD quintiles 1, 2 and 3.

Table A1.11: Use of FV treatments within NHS Orkney, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	20	29	39.2%	76.3%	37.1%
	2	13	18	31.7%	54.5%	22.8%
	3	23	30	53.5%	76.9%	23.4%
	4	25	30	45.5%	49.2%	3.7%
	5 = least	11	18	26.8%	56.3%	29.4%
	Unknown	1	-	-	-	-
	Total		93	125	40.3%	61.6%
4	1 = most	27	38	60.0%	76.0%	16.0%
	2	27	27	62.8%	64.3%	1.5%
	3	22	31	50.0%	67.4%	17.4%
	4	45	45	73.8%	78.9%	5.2%
	5 = least	18	32	50.0%	76.2%	26.2%
	Unknown	7	-	-	-	-
	Total		146	173	63.8%	73.0%
Combined 3 and 4	Total	239	298	52.0%	67.7%	15.7%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 3a and Table 3b.

Overall, NHS Orkney did not meet the HEAT target for all quintiles, for both age groups. However, the 60% target was met for all quintiles for four year olds and for SIMD quintiles 1 and 3 for three year olds in 2013/14. In absolute terms, the increase in percentages between the two years is quite varied across the SIMD quintiles and ages. Within the three year old age group, SIMD quintile 1 and 3 exceeded the target (>76%) whilst quintile 5 just missed the target by 4%. This was a great improvement on 2012/13 when the target was not met for any SIMD quintile. Within the four year old age group, all the SIMD quintiles met the 60% target which was also an improvement from 2012/13. In terms of the absolute difference, the biggest improvement in this age group could be seen in SIMD quintiles 3 and 5 which had previously not met the target.

Table A1.12: Use of FV treatments within NHS Shetland, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	30	49	68.2%	94.2%	26.0%
	2	15	41	31.3%	74.5%	43.3%
	3	31	46	50.8%	80.7%	29.9%
	4	26	45	47.3%	73.8%	26.5%
	5 = least	27	57	38.0%	100.0%	62.0%
	Unknown	3	4	-	-	-
	Total		132	242	47.3%	85.8%
4	1 = most	31	49	58.5%	116.7%	58.2%
	2	17	36	35.4%	73.5%	38.1%
	3	25	53	50.0%	93.0%	43.0%
	4	27	40	57.4%	72.7%	15.3%
	5 = least	18	57	34.0%	80.3%	46.3%
	Unknown	6	5	-	-	-
	Total		124	240	49.4%	87.6%
Combined 3 and 4	Total	256	482	48.3%	86.7%	38.4%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 3a and Table 3b.
- The population estimates should be treated with some caution as there are some potential issues which may arise when using the estimates as denominators for the FV percentages.

In NHS Shetland the 60% HEAT target for FV delivery to three and four year old children was met and exceeded for each quintile in 2013/14. The proportions of children receiving FV treatment in NHS Shetland has improved considerably from 2012/13 when the HEAT target was only achieved for three year olds in SIMD 1. In absolute terms, there was a noticeable increase in SIMD quintiles 2 and 5 for three years olds and SIMDs 1, 3 and 5 for four year olds. SIMD 5 for three year olds and SIMD 1 for four year olds reported the proportions reaching over 100%. Please note, the population estimates should be treated with some caution as there are some potential issues which may arise when using the estimates as denominators for the FV percentages, as highlighted in the Population Estimates Section in Methodology.

Table A1.13: Use of FV treatments within NHS Tayside, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	323	366	29.4%	35.8%	6.4%
	2	173	192	21.4%	23.6%	2.3%
	3	103	148	12.5%	18.3%	5.9%
	4	119	127	14.0%	15.3%	1.4%
	5 = least	74	104	10.1%	14.5%	4.5%
	Unknown	7	10	-	-	-
	Total		799	947	18.5%	22.6%
4	1 = most	471	615	47.0%	57.4%	10.4%
	2	263	304	32.3%	38.0%	5.7%
	3	139	175	16.5%	21.1%	4.6%
	4	137	180	15.5%	21.1%	5.6%
	5 = least	93	146	12.7%	18.8%	6.1%
	Unknown	6.00	17	-	-	-
	Total		1,109	1,437	25.9%	33.2%
Combined 3 and 4	Total	1,908	2,384	22.2%	28.0%	5.8%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 3a and Table 3b.

The HEAT target was not achieved by NHS Tayside. There has been a small improvement throughout all the deprivation quintiles for both ages between the two financial years. The percentage of children receiving the FV treatment follows the national trend in 2013/14. There is a higher percentage of FV delivery to three year olds and four year olds within SIMD quintile 1, which decreases through each of the quintiles. Considering the absolute difference between the two time points, the biggest increase can be seen in SIMD 1 for children aged four, where a 10% increase has resulted in the 60% HEAT target being missed by less than 3%.

Table A1.14: Use of FV treatments within NHS Western Isles, by Within NHS Board non-population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	17	32	37.8%	50.0%	12.2%
	2	15	48	34.1%	102.1%	68.0%
	3	18	40	26.1%	105.3%	79.2%
	4	35	39	58.3%	69.6%	11.3%
	5 = least	24	33	38.1%	68.8%	30.7%
	Unknown	1	5	-	-	-
	Total		110	197	39.1%	77.9%
4	1 = most	23	30	45.1%	73.2%	28.1%
	2	27	40	46.6%	85.1%	38.6%
	3	23	53	42.6%	73.6%	31.0%
	4	42	58	65.6%	100.0%	34.4%
	5 = least	35	40	58.3%	67.8%	9.5%
	Unknown	4	3	-	-	-
	Total		154	224	53.7%	80.9%
Combined 3 and 4	Total	264	421	46.5%	79.4%	32.9%

Source: ISD, MIDAS and Health Information Centre (HIC).

- a. The Within NHS Board non-population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting into 5 deprivation quintiles with approximately 20% of the data zones in each quintile.
- b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- d. Further breakdown of data can be found in Table 3a and Table 3b.
- e. The population estimates should be treated with some caution as there are some potential issues which may arise when using the estimates as denominators for the FV percentages.

Overall, NHS Western Isles did not meet the HEAT target for all quintiles, for both age groups. However, In NHS Western Isles the 60% target for FV delivery during 2013/14 was met for all four year old children in each of the SIMD groups and, with exception of SIMD1, for all three years old. In absolute terms, there was a large increase in the percentage of children who received FV treatment compared to 2012/13. Previously the target was met only in SIMD quintile 4 for four year olds. The percentage of children of both age groups within SIMD quintile 1 who received FV treatment is lower than the lesser deprived quintiles. SIMDs 2 and 3 for three year olds and SIMD 4 for four year olds reported the proportions reaching over 100%. Please note, the population estimates should be treated with some caution as there are some potential issues which may arise when using the estimates as denominators for the FV percentages, as highlighted in the Population Estimates Section in Methodology.

A2 – FV analysis by population weighted 2012 SIMD

As previously discussed it was decided that the HEAT target H9 – percentage of Fluoride Varnish applications should be calculated using the non-population weighted 2012 SIMD measure of deprivation to keep the measurement in line with all other HEAT targets. This had changed the previous method in which the population weighted 2012 SIMD deprivation measure had been used (see methodology section for a full explanation). The data below shows the total number of children who had 2 or more FV Applications and the percentage of children who had 2 or more FV Applications calculated using the population weighted 2012 SIMD quintiles.

For further information on population weighted quintiles SIMD, see Geography Population Deprivation: <http://www.isdscotland.org/Products-and-Services/GPD-Support/Deprivation/SIMD/>

Table A2.1: Use of FV treatments within Scotland, by Scotland population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Scotland SIMD (2012) Quintile	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	4,241	5,838	29.6%	42.6%	13.0%
	2	2,782	4,399	23.5%	37.7%	14.2%
	3	2,075	3,588	18.1%	32.3%	14.2%
	4	1,793	3,142	15.7%	28.2%	12.5%
	5 = least	1,185	2,190	11.3%	21.2%	9.8%
	Unknown	116	163	-	-	-
	Total	12,192	19,320	20.5%	33.3%	12.8%
4	1 = most	5,181	6,999	36.9%	49.5%	12.6%
	2	2,940	4,957	25.0%	42.2%	17.2%
	3	2,023	3,916	17.9%	34.3%	16.4%
	4	1,639	3,061	14.2%	26.7%	12.5%
	5 = least	1,096	2,102	10.2%	19.5%	9.3%
	Unknown	189	200	-	-	-
	Total	13,068	21,235	22.0%	35.6%	13.6%
Combined 3 and 4	Total	25,260	40,555	21.3%	34.5%	13.2%

Source: ISD, MIDAS and Health Information Centre (HIC).

a. The Scotland population weighted 2012 SIMD quintiles are calculated by ranking all data zones from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the Scottish population in each quintile.

b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.

c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.

d. Further breakdown of data can be found in Table 4a and Table 4b.

Overall the percentage of children receiving FV treatments has increased from 2012/13 by around 13% (in absolute terms) for both children aged three and four years old. Again, SIMD quintile 1 had the highest percentage and the lowest was recorded from the SIMD 5 quintile, across both age groups and timeframes.

Table A2.2: Use of FV treatments within NHS Ayrshire & Arran, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	317	413	30.5%	44.5%	14.0%
	2	117	197	14.4%	24.7%	10.3%
	3	92	162	12.7%	21.7%	9.0%
	4	113	137	14.4%	18.8%	4.4%
	5 = least	83	109	12.5%	17.8%	5.3%
	Unknown	6	8	-	-	-
	Total		728	1,026	18.1%	26.9%
4	1 = most	373	376	37.8%	37.5%	-0.3%
	2	153	210	18.0%	25.7%	7.7%
	3	81	124	10.6%	17.0%	6.4%
	4	89	134	11.7%	16.6%	4.9%
	5 = least	79	120	12.1%	17.6%	5.5%
	Unknown	5	4	-	-	-
	Total		780	968	19.4%	24.0%
Combined 3 and 4	Total	1,508	1,994	18.8%	25.4%	6.6%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.3: Use of FV treatments within NHS Borders, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	98	145	34.5%	56.4%	21.9%
	2	37	69	16.4%	31.1%	14.7%
	3	26	39	11.8%	19.1%	7.3%
	4	38	58	17.5%	27.8%	10.3%
	5 = least	34	67	14.8%	30.5%	15.7%
	Unknown	5	2	-	-	-
	Total		238	380	13.4%	34.2%
4	1 = most	142	153	51.6%	54.4%	2.8%
	2	62	81	28.1%	37.2%	9.1%
	3	30	50	14.0%	22.6%	8.6%
	4	43	68	18.4%	29.8%	11.4%
	5 = least	39	82	15.5%	34.0%	18.5%
	Unknown	3	5	-	-	-
	Total		319	439	26.7%	36.9%
Combined 3 and 4	Total	557	819	23.5%	35.6%	12.1%

Source: ISD, MIDAS and Health Information Centre (HIC).

a. The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.

b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.

c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.

d. Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.4: Use of FV treatments within NHS Dumfries and Galloway, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	91	121	22.6%	31.3%	8.7%
	2	48	58	15.7%	18.6%	2.9%
	3	34	58	11.4%	21.5%	10.1%
	4	25	31	9.4%	12.4%	3.0%
	5 = least	28	45	11.2%	15.1%	3.9%
	Unknown	3	3	-	-	-
	Total		229	316	15.0%	20.8%
4	1 = most	156	149	38.5%	38.9%	0.4%
	2	54	71	19.1%	23.9%	4.8%
	3	49	59	15.8%	19.7%	3.9%
	4	19	34	7.8%	12.9%	5.1%
	5 = least	48	47	17.0%	17.4%	0.4%
	Unknown	3	7	-	-	-
	Total		329	367	21.6%	24.3%
Combined 3 and 4	Total	558	683	18.3%	22.5%	4.2%

Source: ISD, MIDAS and Health Information Centre (HIC).

a. The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.

b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.

c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.

d. Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.5: Use of FV treatments within NHS Fife, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	415	426	40.3%	39.7%	-0.6%
	2	209	228	24.0%	26.5%	2.5%
	3	108	139	13.1%	16.6%	3.5%
	4	87	120	12.5%	16.8%	4.3%
	5 = least	81	102	10.3%	14.0%	3.7%
	Unknown	3	7	-	-	-
	Total	903	1,022	21.4%	24.2%	2.8%
4	1 = most	470	533	47.0%	52.7%	5.7%
	2	197	251	24.6%	29.2%	4.6%
	3	147	162	17.6%	19.2%	1.6%
	4	106	108	13.3%	15.1%	1.8%
	5 = least	112	116	14.1%	14.2%	0.1%
	Unknown	16	9	-	-	-
	Total	1,048	1,179	24.8%	27.8%	3.0%
Combined 3 and 4	Total	1,951	2,201	23.1%	26.0%	2.9%

Source: ISD, MIDAS and Health Information Centre (HIC).

a. The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.

b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.

c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.

d. Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.6: Use of FV treatments within NHS Forth Valley, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	172	296	21.9%	41.3%	19.4%
	2	99	186	14.8%	26.8%	12.0%
	3	63	102	9.3%	14.8%	5.5%
	4	56	108	8.8%	17.9%	9.1%
	5 = least	35	98	5.7%	15.7%	10.0%
	Unknown	3	3	-	-	-
	Total		428	793	12.6%	23.8%
4	1 = most	192	358	25.4%	45.4%	20.0%
	2	99	210	14.8%	32.3%	17.5%
	3	57	104	7.9%	15.3%	7.4%
	4	44	101	6.8%	15.7%	8.9%
	5 = least	57	92	9.3%	14.5%	5.2%
	Unknown	6	6	-	-	-
	Total		455	871	13.4%	25.6%
Combined 3 and 4	Total	883	1,664	13.0%	24.7%	11.7%

Source: ISD, MIDAS and Health Information Centre (HIC).

a. The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.

b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.

c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.

d. Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.7: Use of FV treatments within NHS Grampian, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

		Children who had 2 or more FV treatments				
Age	Health Board	2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	429	609	29.3%	42.3%	13.0%
	2	278	534	21.5%	41.5%	20.0%
	3	241	516	17.9%	36.9%	19.0%
	4	118	356	8.5%	25.9%	17.4%
	5 = least	90	175	8.3%	15.2%	6.9%
	Unknown	14	36	-	-	-
	Total		1,170	2,226	17.8%	33.5%
4	1 = most	610	831	42.4%	57.9%	15.5%
	2	296	512	23.5%	39.4%	15.9%
	3	178	415	14.0%	30.4%	16.4%
	4	106	265	7.6%	18.7%	11.1%
	5 = least	77	145	7.0%	12.9%	5.9%
	Unknown	21	24	-	-	-
	Total		1,288	2,192	19.9%	33.0%
Combined 3 and 4	Total	2,458	4,418	18.8%	33.3%	14.5%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.8: Use of FV treatments within NHS Greater Glasgow and Clyde, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	924	1,138	28.6%	36.7%	8.1%
	2	614	816	22.0%	30.3%	8.3%
	3	364	560	15.0%	21.8%	6.8%
	4	395	630	16.1%	26.3%	10.2%
	5 = least	219	397	9.4%	16.4%	7.0%
	Unknown	19	24	-	-	-
	Total		2,535	3,565	19.1%	27.1%
4	1 = most	1,286	1,499	39.8%	46.5%	6.7%
	2	810	1,000	30.1%	36.2%	6.1%
	3	493	631	19.8%	26.5%	6.7%
	4	328	723	13.4%	29.5%	16.1%
	5 = least	179	359	7.3%	14.8%	7.5%
	Unknown	35	34	-	-	-
	Total		3,131	4,246	23.5%	32.1%
Combined 3 and 4	Total	5,666	7,811	21.3%	29.6%	8.3%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.9: Use of FV treatments within NHS Highland, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	306	308	35.5%	38.7%	3.2%
	2	138	201	20.4%	28.5%	8.1%
	3	112	156	19.3%	28.5%	9.2%
	4	127	157	16.9%	24.0%	7.1%
	5 = least	78	103	12.8%	18.9%	6.1%
	Unknown	7	7	-	-	-
	Total		768	932	22.1%	28.7%
4	1 = most	408	414	48.4%	49.4%	1.0%
	2	176	218	27.3%	31.8%	4.5%
	3	151	182	24.6%	30.1%	5.5%
	4	137	183	19.4%	24.5%	5.1%
	5 = least	110	127	16.6%	20.8%	4.2%
	Unknown	24	12	-	-	-
	Total		1,006	1,136	29.0%	32.6%
Combined 3 and 4	Total	1,774	2,068	25.5%	30.7%	5.2%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.10: Use of FV treatments within NHS Lanarkshire, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

		Children who had 2 or more FV treatments				
Age	Health Board	2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	627	1,143	41.9%	76.8%	34.7%
	2	528	1,086	37.7%	83.3%	45.5%
	3	540	1,076	41.1%	83.0%	42.1%
	4	451	1,007	34.4%	82.5%	47.8%
	5 = least	487	971	40.0%	80.8%	40.8%
	Unknown	21	30	-	-	-
	Total		2,654	5,313	39.4%	81.6%
4	1 = most	493	1,079	33.2%	72.0%	38.9%
	2	255	982	18.7%	70.5%	51.1%
	3	246	1,017	17.7%	77.5%	59.2%
	4	203	948	15.7%	71.8%	56.0%
	5 = least	232	807	18.6%	66.5%	48.0%
	Unknown	19	39	-	-	-
	Total		1,448	4,872	21.4%	72.3%
Combined 3 and 4	Total	4,102	10,815	30.3%	76.9%	46.6%

Source: ISD, MIDAS and Health Information Centre (HIC).

- a. The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.
- b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- d. Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.11: Use of FV treatments within NHS Lothian, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	589	863	22.6%	36.8%	14.2%
	2	274	442	14.1%	23.7%	9.6%
	3	231	397	11.3%	19.1%	7.8%
	4	153	266	8.5%	16.7%	8.2%
	5 = least	135	244	8.3%	15.3%	7.0%
	Unknown	23	24	-	-	-
	Total	1,405	2,236	14.0%	23.6%	9.6%
4	1 = most	760	1,216	30.5%	47.1%	16.6%
	2	323	585	17.1%	30.7%	13.6%
	3	263	516	13.4%	25.4%	12.0%
	4	199	285	10.9%	15.7%	4.8%
	5 = least	152	254	9.0%	15.3%	6.3%
	Unknown	34	35	-	-	-
	Total	1,731	2,891	17.6%	28.9%	11.4%
Combined 3 and 4	Total	3,136	5,127	15.8%	26.3%	10.5%

Source: ISD, MIDAS and Health Information Centre (HIC).

- a. The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.
- b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- d. Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.12: Use of FV treatments within NHS Orkney, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	20	29	39.2%	76.3%	37.1%
	2	11	15	30.6%	55.6%	25.0%
	3	25	33	52.1%	73.3%	21.2%
	4	25	30	45.5%	49.2%	3.7%
	5 = least	11	18	26.8%	56.3%	29.5%
	Unknown	1	-	-	-	-
	Total		93	125	40.3%	61.6%
4	1 = most	27	38	60.0%	76.0%	16.0%
	2	25	22	69.4%	61.1%	-8.3%
	3	24	36	47.1%	69.2%	22.1%
	4	45	45	73.8%	78.9%	5.1%
	5 = least	18	32	50.0%	76.2%	26.2%
	Unknown	7	-	-	-	-
	Total		146	173	63.8%	73.0%
Combined 3 and 4	Total	239	298	52.0%	67.7%	15.7%

Source: ISD, MIDAS and Health Information Centre (HIC).

- a. The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.
- b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- d. Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.13: Use of FV treatments within NHS Shetland, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	30	49	68.2%	94.2%	26.0%
	2	15	41	31.3%	74.5%	43.3%
	3	31	46	50.8%	80.7%	29.9%
	4	26	45	47.3%	73.8%	26.5%
	5 = least	27	57	38.0%	100.0%	62.0%
	Unknown	3	4	-	-	-
	Total		132	242	47.3%	85.8%
4	1 = most	31	49	58.5%	116.7%	58.2%
	2	17	36	35.4%	73.5%	38.1%
	3	25	53	50.0%	93.0%	43.0%
	4	27	40	57.4%	72.7%	15.3%
	5 = least	18	57	34.0%	80.3%	46.3%
	Unknown	6	5	-	-	-
	Total		124	240	49.4%	87.6%
Combined 3 and 4	Total	256	482	48.3%	86.7%	38.4%

Source: ISD, MIDAS and Health Information Centre (HIC).

- The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.
- 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- Further breakdown of data can be found in Table 5a and Table 5b.
- The population estimates should be treated with some caution as there are some potential issues which may arise when using the estimates as denominators for the FV percentages.

Table A2.14: Use of FV treatments within NHS Tayside, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

Age	Health Board	Children who had 2 or more FV treatments				Absolute difference between 2012/13 and 2013/14
		2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	
3	1 = most	346	387	29.8%	36.3%	6.4%
	2	159	181	19.7%	21.6%	2.3%
	3	99	148	11.7%	18.1%	5.9%
	4	117	117	14.3%	14.8%	1.4%
	5 = least	71	104	10.2%	15.3%	4.5%
	Unknown	7	10	-	-	-
	Total		799	947	18.5%	22.6%
4	1 = most	506	649	47.8%	57.5%	10.4%
	2	234	280	28.7%	34.8%	5.7%
	3	140	172	16.2%	20.3%	4.6%
	4	137	176	16.2%	21.6%	5.6%
	5 = least	86	143	12.4%	19.4%	6.1%
	Unknown	6	17	-	-	-
	Total		1,109	1,437	25.9%	33.2%
Combined 3 and 4	Total	1,908	2,384	22.2%	28.0%	5.8%

Source: ISD, MIDAS and Health Information Centre (HIC).

- a. The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.
- b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- d. Further breakdown of data can be found in Table 5a and Table 5b.

Table A2.15: Use of FV treatments within NHS Western Isles, Within NHS Board population weighted 2012 SIMD: Financial years 2012/13 and 2013/14.

		Children who had 2 or more FV treatments				
Age	Health Board	2012/13 number	2013/14 number	2012/13 percentage	2013/14 percentage	Absolute difference between 2012/13 and 2013/14
3	1 = most	17	32	37.8%	50.0%	12.2%
	2	15	48	34.1%	102.1%	68.0%
	3	18	40	26.1%	105.3%	79.2%
	4	35	39	58.3%	69.6%	11.3%
	5 = least	24	33	38.1%	68.8%	30.7%
	Unknown	1	5	-	-	-
	Total		110	197	39.1%	77.9%
4	1 = most	23	30	45.1%	73.2%	28.1%
	2	27	40	46.6%	85.1%	38.6%
	3	23	53	42.6%	73.6%	31.0%
	4	42	58	65.6%	100.0%	34.4%
	5 = least	35	40	58.3%	67.8%	9.5%
	Unknown	4	3	-	-	-
	Total		154	224	53.7%	80.9%
Combined 3 and 4	Total	264	421	46.5%	79.4%	32.9%

Source: ISD, MIDAS and Health Information Centre (HIC).

- a. The Within NHS Board population weighted 2012 SIMD quintiles are calculated by ranking all data zones in each NHS Board from the most to least deprived and then splitting this into 5 deprivation quintiles with approximately 20% of the NHS Board population in each quintile.
- b. 2012 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2012/13 data.
- c. 2013 mid-year population estimates from National Records Scotland (NRS) based on 2011 census for 2013/14 data.
- d. Further breakdown of data can be found in Table 5a and Table 5b.
- e. The population estimates should be treated with some caution as there are some potential issues which may arise when using the estimates as denominators for the FV percentages.

A3 – Publication Metadata (including revisions details)

Metadata Indicator	Description
Publication title	Dental Statistics – HEAT Target H9: Fluoride varnishing for 3 and 4 year olds.
Description	This release provides information, as part of the <i>Childsmile</i> programme, on the application of fluoride varnish to children's teeth and specifically on 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 fluoride varnish per year by March 2014).
Theme	Dental Care.
Topic	HEAT Target: fluoride varnishing.
Format	PDF and external Excel file.
Data source(s)	MIDAS (Computerised payment system for GDS and PDS dentists); <i>Childsmile</i> database, Health Informatics Centre, University of Dundee; <i>Childsmile</i> database, Glasgow Dental Hospital and School.
Date that data are acquired	24 th July 2014.
Release date	27 th January 2014.
Frequency	Annual
Timeframe of data and timeliness	Financial years: <ul style="list-style-type: none"> • 1st April 2012 to 31st March 2013 and • 1st April 2013 to 31st March 2014 Currently 10 months in arrears.
Continuity of data	Data recorded and analysed annually since 2010.
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 the future.
Revisions relevant to this publication	This report sees a change in methodology with regards to the deprivation measure used to estimate the population and subsequently the percentage of children receiving FV applications. In August 2014, the Scottish Government requested that FV reporting for the HEAT target reflect the non-population weighted 2012 SIMD measure in order to align with other reporting in other Scottish Government suite of HEAT targets. Prior to this, the population weighted 2012 SIMD methodology was used for analysis. The data in the main body of the report, and Appendix A1, is based on the non-population weighted 2012 SIMD methodology. For transparency, the results based on the population weighted 2012 SIMD methodology is included in

	Appendix A2.
Concepts and definitions	See glossary
Relevance and key uses of the statistics	Making information publicly available for planning, provision of services, research, etc.
Accuracy	<p>Analysis has been run and quality checked by independent analysts to ensure the accuracy.</p> <p>2012/13 raw numbers are consistent with the 2012/13 publication.</p> <p>2012/13 NRS small area population estimates have been updated to 2012 estimates, as these had not been released in time for the previous reporting. Therefore populations and percentages differ slightly from 2012/13 publication, but are more accurately aligned now.</p> <p>NHS Shetland and NHS Western Isles data reports some SIMD quintile proportions over 100% and therefore some population denominators should be treated with caution. This may be due to the following:</p> <ul style="list-style-type: none"> • Short term migrants who had not been accounted for in the estimated population (which was based on the 2011 census) may be registered with an NHS dentist and therefore counted in the numerator. • The population is based on mid-year estimates, whereas registration is based on the patient's age at the date of snapshot. As a result, a patient initially counted in the population estimate (denominator) may have a birthday after the mid-year and will therefore be counted in the higher age category within the numerator (number registered). <p>Within the numerator around 3% of children are recorded as living in two different data zones throughout the financial years 2012/13 and 2013/14. The original data zone is applied to subsequent records for each child with more than one data zone recorded to enable a unique count of patients.</p>
Completeness	<p>Data is complete based on records from MIDAS; <i>Childsmile</i> database, Health Informatics Centre, University of Dundee; <i>Childsmile</i> database, Glasgow Dental Hospital and School.</p> <p>However, there are currently discussions with regards to the high number of <i>Childsmile</i> rejections in MIDAS, therefore results here may be conservative.</p>
Comparability	No other data available
Accessibility	It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines .
Coherence and clarity	Single relevant external table supplied. Coherent and consistent with table in publication body.

Value type and unit of measurement	Number of 3 or 4 year old children who received at least two applications of fluoride varnish in the previous year, estimated population of 3 or 4 year old children, and percentage of population who received at least two applications of fluoride varnish, by deprivation quintile of residence both nationally and in each NHS Board area in the previous year.
Disclosure	The ISD protocol on Statistical Disclosure Protocol is followed.
Official Statistics designation	Official Statistics
UK Statistics Authority Assessment	Not assessed at this time.
Last published	25 th November 2013
Next published	27 th January 2015
Date of first publication	25 th November 2012
Help email	NSS.ISD-Dental-Info@nhs.net
Date form completed	17th January 2015

A4 – 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.

Standard Pre-Release Access:

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

A5 – 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.

Official Statistics

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.

ISD's statistical publications are currently classified as one of the following:

- National Statistics (ie assessed by the UK Statistics Authority as complying with the Code of Practice)
- 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)
- other (not Official Statistics)

Further information on ISD's statistics, including compliance with the Code of Practice for Official Statistics, and on the UK Statistics Authority, is available on the [ISD website](#).

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics. Designation can be broadly interpreted to mean that the statistics:

- 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.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.