

Integration Joint Board

26th July 2018

This Report relates to
Item 11 on the Agenda

Annual Oral Health Monitoring Report

(Paper presented by Valerie White)

For Noting

Approved for Submission by	Ken Donaldson Medical Director
Author	Valerie White Consultant Dental Public Health/Professional Lead for Dental and Oral Health Services
List of Background Papers	<ul style="list-style-type: none"> • Lochside Dental Clinic Review IJB Paper 27th July 2017, • Lochside Dental Clinic Review, NHS Board Paper 7th August 2017 • Lochside and Lincluden Oral Health Action Plan Update and Lochside Dental Clinic Withdrawal Update, NHS Board Paper 7th December 2017 • Update on Withdrawal from Lochside Dental Clinic and Lochside and Lincluden Oral Health Plan Implementation. Clinical and Care Governance Committee 23rd April 2018 • Update on Withdrawal from Lochside Dental Clinic and Lochside and Lincluden Oral Health Plan Implementation. Integration Joint Board Meeting, 31st May 2018
Appendices	None

SECTION 1: REPORT CONTENT

Title/Subject:	Annual Oral Health Monitoring Report
Meeting:	Integration Joint Board
Date:	26th July 2018
Submitted By:	Valerie White, Consultant Dental Public Health/Professional Lead for Dental and Oral Health Services
Action:	For Noting

1. Introduction

- 1.1 This paper presents the annual oral health monitoring report agreed at the 7th December 2017 NHS Board meeting.

2. Recommendations

2.1 The Integration Joint Board is asked to:

- **Note the annual oral health monitoring report.**

3. Background

- 3.1 Following the withdrawal of routine provision of NHS Dental Services by the Public Dental Service from Lochside Dental Clinic and implementation of the Lochside and Lincluden Oral Health plan an annual oral health monitoring framework was agreed by the NHS Board in December 2017. In April 2018, a paper updating on the withdrawal of service from Lochside clinic and implementation of the Lochside and Lincluden oral health plan was presented to Clinical and Care Governance Committee. It was noted at that meeting that the annual oral health monitoring report would be presented to a future meeting of the Clinical and Care Governance Committee.
- 3.2 This report provides information on oral health trends in children, access to preventative dental services and NHS dental registration and participation as agreed at the December 2017 NHS Board meeting. Where possible trend data is presented but for some indicators only baseline/limited data is provided with a view to building on this for future annual updates.
- 3.3 It should be noted that with regards to the information on NHS dental registration and participation the data presented relates to the period prior to the withdrawal of

services from Lochside dental clinic. Monitoring of the impact of the withdrawal will be possible in future annual monitoring framework reports.

4. Main Body of the Report

4.1 National Dental Inspection Programme Results

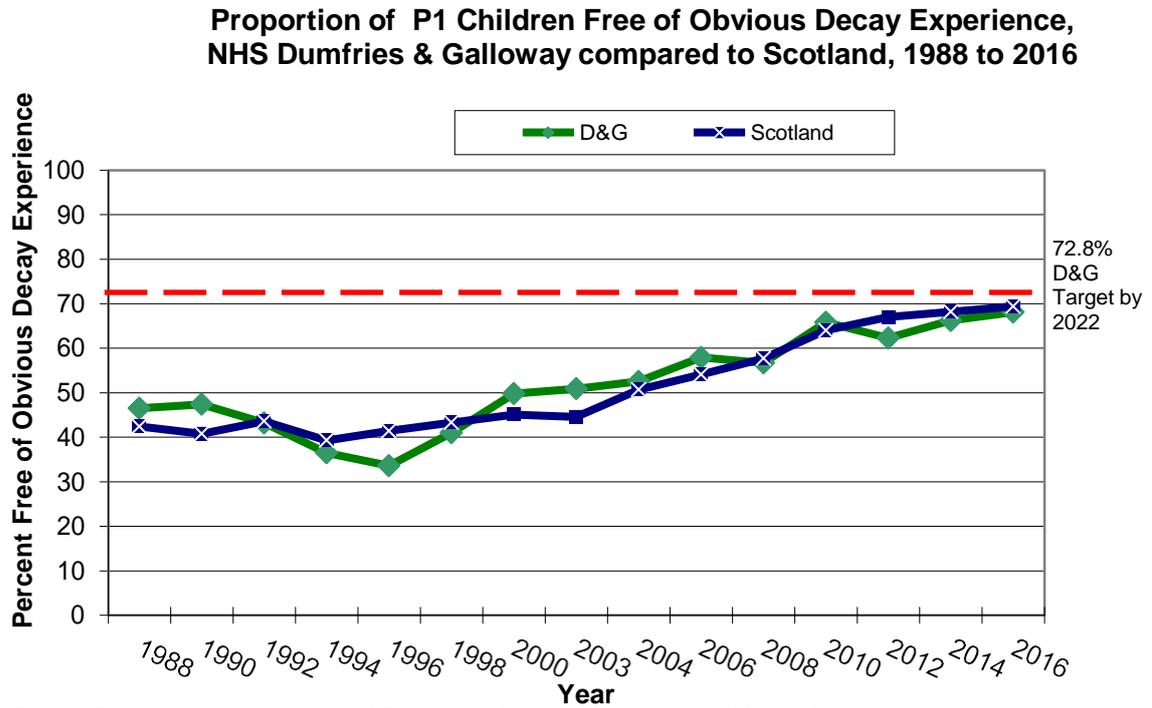
The National Dental Inspection Programme carries out dental inspections for all children in Primary 1 (P1) and Primary 7 (P7). There are two levels of the programme, detailed and basic inspections. Detailed inspections are carried out on a sample of children (alternating between P1 and P7 each year) and provide information to allow monitoring of trends in oral health across Scotland. The basic inspection is offered to every child in P1 and P7 each year and informs parents/carers of the oral health status of their child.

National Dental Inspection Programme Results Primary 1

Significant improvements in the oral health of P1 children have been seen in both Scotland and Dumfries and Galloway in recent years (**see Figure 1**). However, inequalities in oral health remain. In 1996 only 33% of P1 children in Dumfries and Galloway had no obvious dental decay experience, this figure now stands at 68%. The Scottish Government developed targets for NHS Boards to meet regarding oral health of P1 children. In Dumfries and Galloway this target is 72.8% of P1 children having no obvious decay experience by 2022. Another means of measuring dental health (deciduous teeth) is the decayed, missing and filled teeth index (d₃mft). In 2016, the average d₃mft for P1 children in Dumfries and Galloway was 1.32 with the score for those having decay being 4.11, for Scotland the figures were 1.21 and 3.93. This demonstrates that those who suffer from dental decay have the greatest burden of disease, particularly so in Dumfries and Galloway.

Figure1

Trends in oral health of P1 children Dumfries and Galloway and Scotland 1988-2016



Source: Scottish Health Boards Dental Epidemiological Programme, National Dental Inspection Programme Detailed Data from 2003

As all children are offered a basic dental inspection on an annual basis the P1 data can be broken down to a smaller area level to look at patterns of obvious dental decay experience. However, the data must be interpreted with caution as the numbers become smaller, and large changes in overall percentages may be caused by changes occurring in a small number of individuals. To help monitor the oral health of P1 children the P1 basic dental inspection data was analysed for the four primary schools in the Lochside and Lincluden area:

The percentage of P1 children with no obvious decay experience in Dumfries and Galloway and those attending school in the Lochside and Lincluden area between 2011 and 2017 is presented in Figure 2.

Figure 2 Percentage of P1 children with no obvious decay experience in Dumfries and Galloway and those attending Primary School in the Lochside and Lincluden area 2011 – 2017

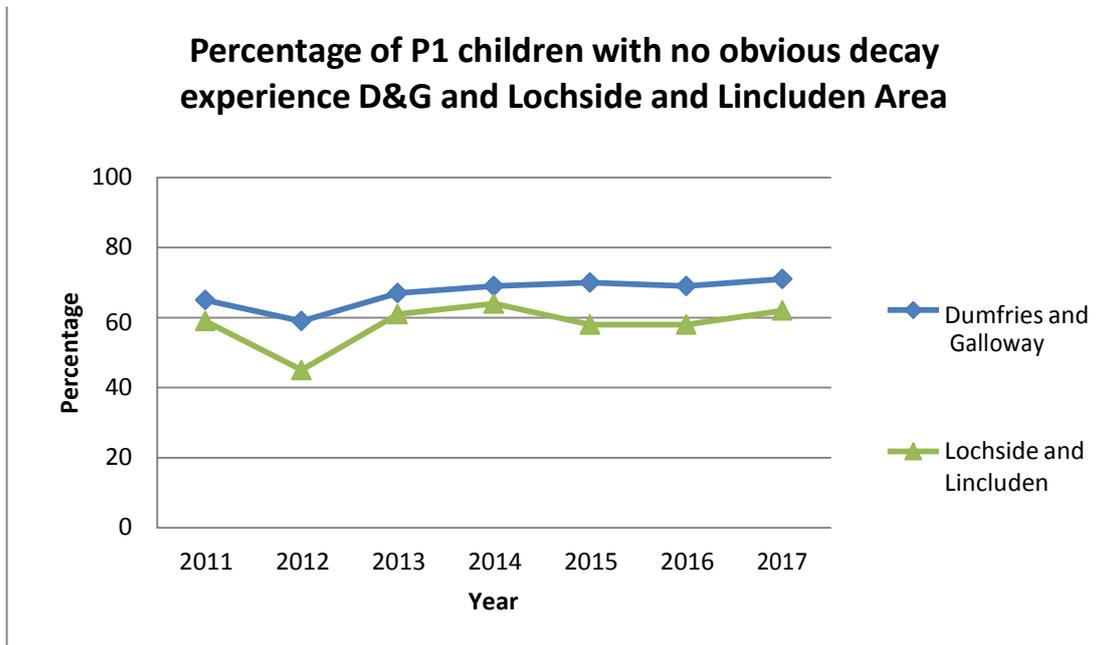


Figure 3 presents the basic inspection results for the schools in the Lochside and Lincluden area compared to the national data available for the percentage of children with no obvious decay experience in SIMD 1 and SIMD 2 for 2012, 2014 and 2016.

Figure 3 Percentage of P1 children with no obvious decay experience SIMD 1 & 2 Scotland and those attending Primary School in the Lochside and Lincluden area

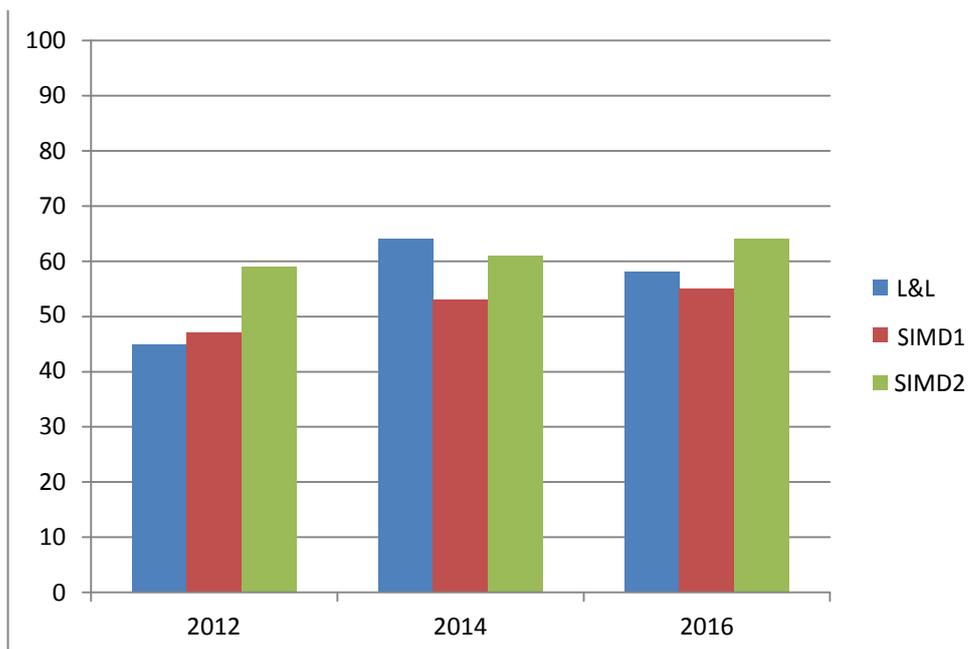
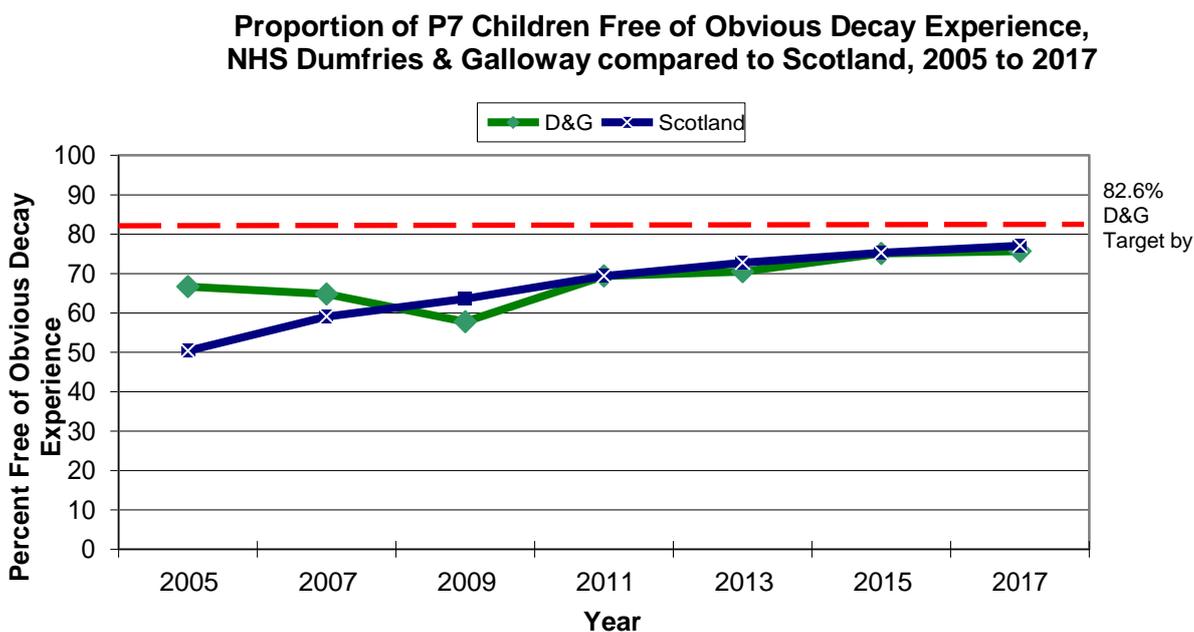


Figure 2 appears to demonstrate that the oral health of children attending school in the Lochside and Lincluden area is consistently lower than for Dumfries and Galloway as a whole. It should be bourn in mind that this difference may be due to small numbers in the Lochside and Lincuden area and therefore should be interpreted with caution. In **Figure 3**, in 2012 the oral health of Primary 1 children living in the Lochside and Lincluden area was comparable to that of the oral health status of children living in the most deprived quintiles in Scotland. However, in 2014 and 2016 the oral health status of children living in the Lochside and Lincluden area appears to be better than that of children living in SIMD1. Again this needs to be interpreted with caution due to the small number of children. However, these figures together with the knowledge of the relationship between deprivation and oral health do demonstrate that a continued focus is required to improve oral health and to reduce the inequalities in oral health that continue to exist.

Primary 7 National Dental Inspection Programme Results

Steady but significant improvements have also been seen in the oral health of P7 children in Dumfries and Galloway and Scotland (see **Figure 4**). In 2005, 66.7% of P7 children in Dumfries and Galloway had no experience of tooth decay, in 2017 this had improved to 76%. The Scottish Government developed targets for NHS Boards to meet regarding oral health of P7 children. In Dumfries and Galloway this target is 82.6% of P7 children having no obvious decay experience by 2022. However, again inequalities in oral health remain, the decayed, missing and filled teeth index permanent teeth (D₃MFT) in 2017 was 0.55 for the whole P7 population but 2.27 for those who had experience of decay, for Scotland the figures are 0.49 and 2.16 respectively. This again demonstrates the uneven distribution of dental decay.

Figure 4 Trends in Oral Health of P7 children Dumfries and Galloway and Scotland 2005-2017



Source: National Dental Inspection Programme Detailed Data

4.2 Access to Preventative Dental Services

Childsmile is a national programme, implemented in Dumfries and Galloway in 2011, which aims to improve the oral health of children in Scotland. It seeks to reduce inequalities both in dental health and in access to dental services by shifting the balance of care towards more preventive and anticipatory care and promoting health improvement from infancy. The programme was informed by published clinical guidelines and by experience gained from previous child oral health improvement programmes in Scotland. These had a focus on health visitor-led health promotion, clinical prevention within primary dental care, and community development based initiatives.

The Childsmile programme consists of 3 elements:

Childsmile Core Programme

- Issue of free toothpaste and toothbrush packs to children on at least 6 occasions in the first 5 years of life
- All nursery schools (local authority and private) invited to participate in daily supervised toothbrushing programme
- Primary schools identified as those most likely to benefit are invited to participate in daily supervised toothbrushing programme (all schools in Dumfries and Galloway) P1&2 are prioritised for this activity although some schools continue this through to P 7.

Childsmile Practice

- Facilitated support via Health Visiting Teams and the Oral Health Improvement Team to encourage dental registration from a young age
- Raising parental awareness of good oral health behaviours and supporting parents to put them into practice
- Increasing the provision of oral health promotion and clinical prevention (i.e. fluoride varnish application) within dental primary care

Childsmile Nursery and School

- Targeted to priority nurseries and primary schools (11 in Dumfries and Galloway)
- Programme of 6-monthly fluoride varnish applications throughout nursery and primary school via Extended Duty Dental Nurses
- Follow-up of children who are not regular dental attenders

The following section outlines some key indicators relating to the Childsmile Programme.

Participation in the Nursery and School Toothbrushing Programme

Table 1 outlines the improvements seen in the uptake of the nursery and primary school supervised toothbrushing programme throughout the region. It is recognised that the implementation of this programme needs sustained commitment of nurseries and school. In times of financial challenge continued support and encouragement is required to support nurseries and schools in the delivery of this programme, which has, at a National level, demonstrated to more than return its investment through savings on actual and anticipated dental treatments.

Table 1 Percentage of Nurseries and Primary Schools in Dumfries and Galloway Participating in the Toothbrushing Programme*

Academic Year	Percentage of Nurseries Toothbrushing	Percentage of Primary Schools Toothbrushing
2011/12	72%	62%
2012/13	89%	78%
2013/14	89%	76%
2014/15	92%	80%
2015/16	96%	87%
2016/17	91%	90%

* Source: National Headline Childsmile Reports

All nurseries and primary schools in the Lochside and Lincluden area participate in the supervised toothbrushing programme. With three schools brushing from nursery to P7 and plans in place for the third school to extend their programme up the school.

Children Identified as Requiring Support from the Childsmile Practice Programme

Referrals to the Childsmile Practice Programme come from a variety of sources including Health Visitors, School Nurses, Dental Teams and Social Work. The Oral Health team provide support to children and families to register and attend dental practices and also provide additional support about diet and good oral hygiene habits. **Table 2** outlines the total number of children that were identified as needing support from the Oral Health Team in 2016/17 and 2017/18 by locality area. The number of children supported in 2017/18 has increased significantly.

Table 2 Total number of children requiring support from the Childsmile Programme Practice Programme 16/17 and 17/18 – all sources

Area	Total Number of Children needing Childsmile Practice support 16/17	Total Number of Children needing Childsmile Practice support 17/18
Nithsdale	52	97
Stewartry	27	41
Annandale & Eskdale	40	152
Wigtownshire	59	83
Total	178	373

It was anticipated that Health Visiting would be the major source of referrals into the Childsmile Programme as early intervention and support from the Childsmile Team from a very young age can help children and families develop good oral health habits and get them registered with a dentist. It was predicted that between 10-15% of the birth cohort of children would be referred into the Programme through Health Visiting Services. The figures in **Table 3** demonstrate that referrals into the programme do vary by locality and that whilst improvements in referral rates have been seen in 2017/18 this still needs to be improved upon, particularly in light of the low registration rates of children aged 0-2years 11months in the region. Work to improve this through the new Universal Health Visiting Pathway is ongoing.

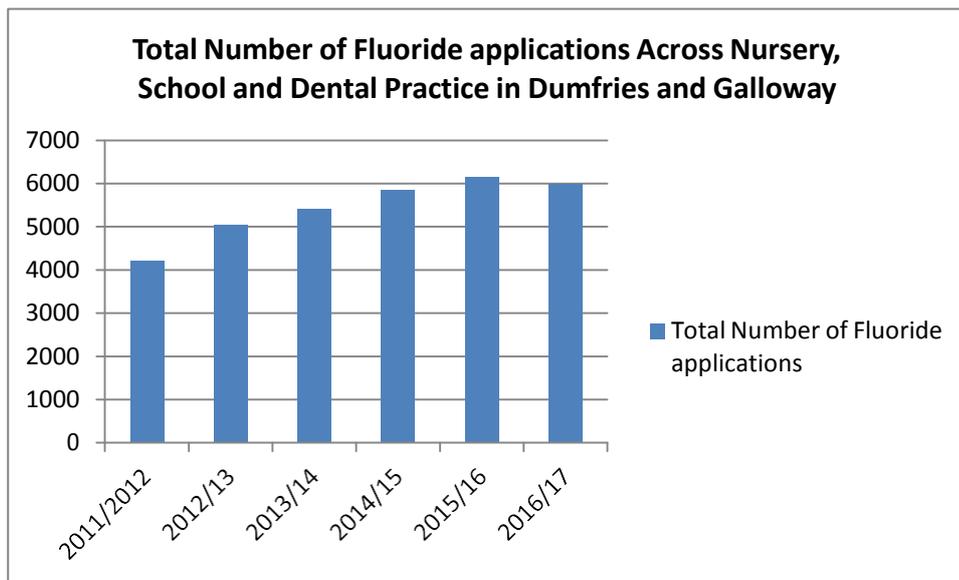
Table 3 Number of children requiring support from the Childsmile Programme Practice Programme 16/17 and 17/18 – identified through Health Visiting Services

Area	Birth cohort 2016	Number of Children needing Childsmile Practice support identified by Health Visiting Service 16/17	Percentage of children out of 2016 birth cohort	Number of Children needing Childsmile Practice support identified by Health Visiting Service 17/18	Percentage of children out of 2016 birth cohort
Nithsdale	507	19 (Lochside and Lincluden – 9)	4%	38 (Lochside and Lincluden- 19)	7%
Stewartry	160	31	19%	16	10%
Annandale & Eskdale	268	10	4%	32	12%
Wigtownshire	253	19	8%	27	11%
Total	1188	79	7%	113	10%

Fluoride Varnish Applications

Fluoride varnish is applied in the nursery and school setting in 11 priority nursery and primary schools throughout the region. In addition it is also able to be applied in General Dental Practice. **Figure 5** outlines the number of fluoride varnish applications that have been applied in Dumfries and Galloway in all settings since 2011/12

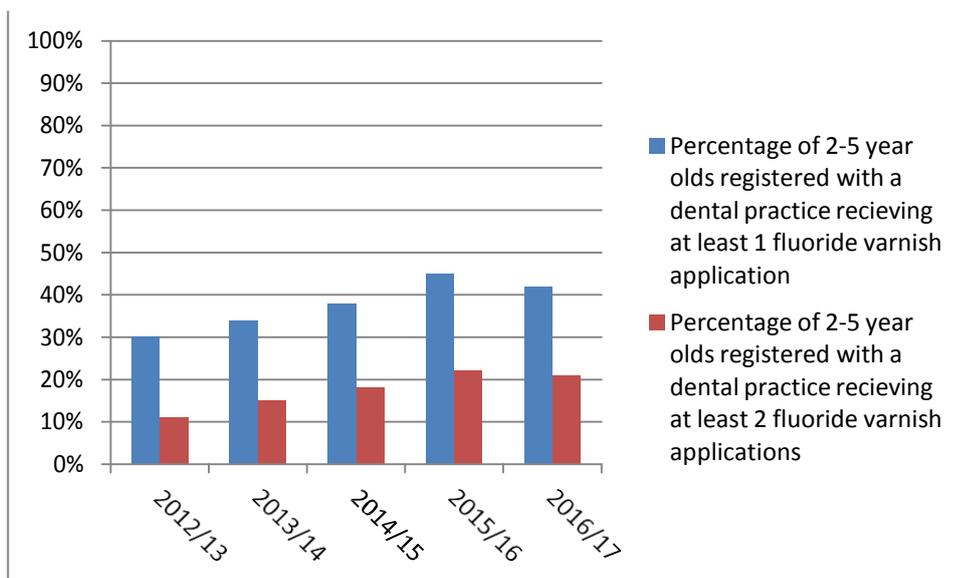
Figure 5 Total Number of Fluoride Varnish Applications Applied in All Settings 2011/12 to 2016/17



Source: National Childsmile Headline Report

Figure 6 outlines the percentage of children aged 2-5 years registered with an NHS Dental Practice that have received either 1 or 2 applications of fluoride varnish in the last year in Dumfries and Galloway. Whilst all children aged 2-5 years are entitled to have twice yearly applications of fluoride varnish, there appears to be a number of barriers to achievement of this and is currently being researched by the National Childsmile Evaluation Team. Locally work to improve these figures will be commencing later in 2018.

Figure 6 Fluoride Varnish Applications in General Dental Practice in Dumfries and Galloway for registered children aged 2-5 years



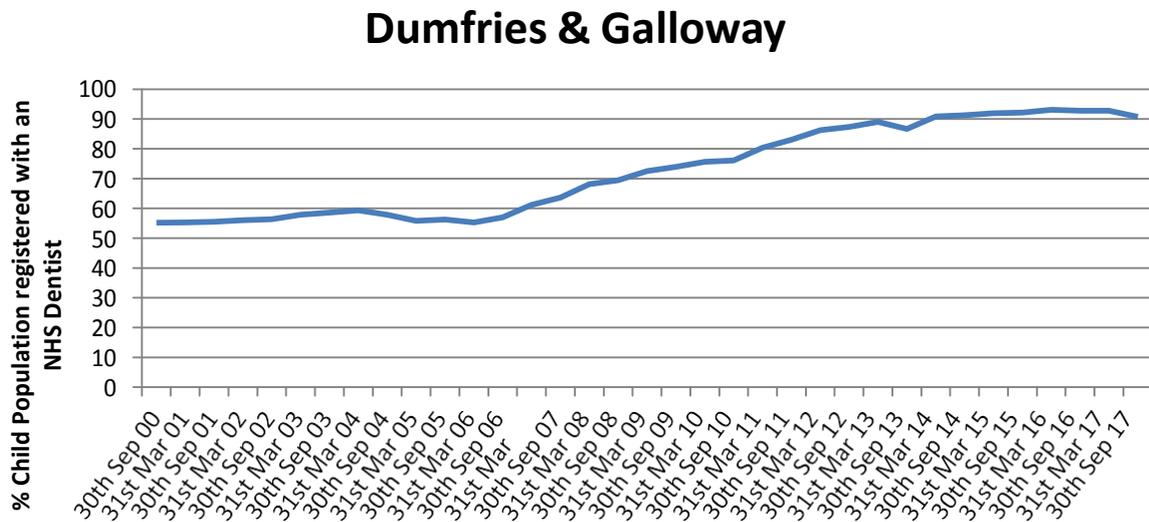
Source: National Childsmile Headline Report

Access to NHS Dental Services

NHS Dental Registration

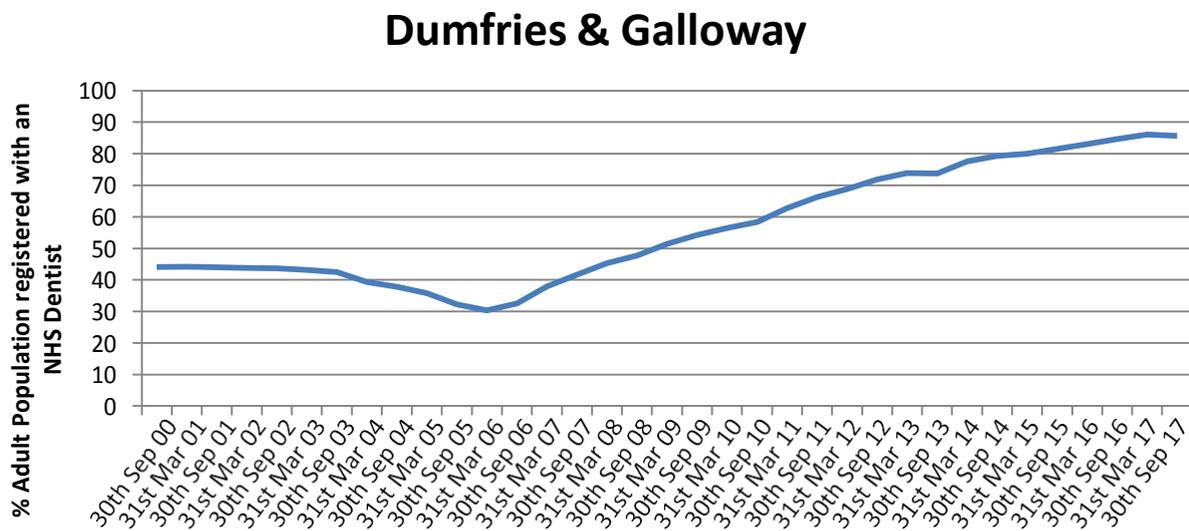
NHS dental registration is defined in this report as any patient registered with an NHS dentist. It does not include registrations with private dentists. As at 30th of September 2017, 93% of the Scottish population were registered with a NHS dentist, for Dumfries and Galloway the overall figure was 87%. At a Scottish level for children there are no longer differences in registrations rates between children living in the most deprived and least deprived areas. However, adults living in more deprived quintiles are more likely to be registered with an NHS dentist than adults living in other deprivation quintiles. **Figure 7** outlines the trends in NHS Dental Registrations for children from 2000 – 2017, and **Figure 8** outlines these trends for adults.

Figure 7 Percentage of the population registered with an NHS dentist in Dumfries and Galloway; from 30th September 2000 to 30th September 2017- Children (0-17 years)



Source: Information Service Division (ISD)

Figure 8 Percentage of the population registered with an NHS dentist in Dumfries and Galloway from 30th September 2000 to 30th September 2017 – Adults



Trends in NHS Dental Registrations by locality area

Local analysis of dental registration data has been undertaken at a number of time points since 2010. This data uses the Community Health Index (CHI) data as a denominator and therefore varies from data produced by Information Services Division (ISD) which uses mid year population estimates. Table 4 presents the changes in total registrations from 2010- 2017 by locality area and Tables 5 & 6 presents the registrations for selected age groups locality area as at January 2016 and September 2017 respectively. Whilst Table 4 demonstrates that registration rates continue to be high across all locality areas, Table 5 & 6 demonstrate that registrations rates for 0-2 years 11 months still remains lower than would be expected and that further work in this area is required. Table 5 & 6 also demonstrate that registration rates of age groups over 65 years appear to be improving slightly.

Table 4 Percentage of the Population Registered with an NHS Dentist by Locality area 2010-2017

Locality	% of the Population Registered as at 30th September 2010	% of the Population Registered as at 30th December 2012	% of the Population Registered as at 31st May 2014	% of the Population Registered as at 31st January 2016	% of the Population Registered as at 30th September 2017
Annandale & Eskdale	63	75	80	85	89
Dumfries & Upper Nithsdale	56	73	78	82	81
Stewartry	60	75	80	84	85
Wigtownshire	67	77	81	86	88

Source: Local analysis of MIDAS Data

Table 5 Percentage of the Population Registered with an NHS Dentist by Locality area for selected age bands in as at Jan 2016

Area	Jan-16 Age Group			
	0-2years11 months	3-5 years	65-74 years	75 years and over
Annadale and Eskdale	44	90	77	69
Nithsdale	53	92	68	64
Stewartry	57	92	74	73
Wigtownshire	53	97	74	72

Source: Local analysis of ISD data

Table 6 Percentage of the Population Registered with an NHS Dentist by Locality area for selected age bands in as at September 2017

Area	Sep-17			
	Age Group			
	0-2years11 months	3-5 years	65-74 years	75 years and over
Annadale and Eskdale	48	90	81	78
Nithsdale	44	86	66	65
Stewartry	46	95	75	75
Wigtownshire	46	95	78	76

Source: Local analysis of ISD data

NHS Dental Registrations in the Lochside and Lincluden Area

In January 2016, it was estimated that 86% of those living in the Lochside and Lincluden area were registered with an NHS Dentist. It was estimated at the time that 949 people living in the area were not registered with an NHS Dentist.

In September 2017, it was estimated that 88% of those living in the Lochside and Lincluden area were registered with an NHS Dentist. It was estimated at the time that 756 people living in the area were not registered with an NHS Dentist. It is noted these figures are prior to the dispersal of patients from Lochside dental clinic. The next oral health monitoring report due April 2019 will look at data from September 2018 which will be after Lochside clinic had closed.

The age breakdown of the Lochside and Lincluden area population registered with a NHS Dentist as at September 2017 is detailed in Table 7 (note some age categories demonstrate percentages over 100%, this is likely to be due to the difference in time points at which registration data and CHI data are extracted – where over 100% registration is reported it is likely that the registration levels are very high). This demonstrates that the 0-2years 11 month age group has the lowest percentage registration, with only 38% of this population's age group registered with an NHS dentist, this rises to 89% for the 3-5 year olds and over 100% for 6-12 year olds. The percentage dental registration figures for the Lochside and Lincluden community remain high until the 65-74 years age category where they fall to 75% and further decline to 70% for those over 75 years. This pattern is also seen in data at Scottish level. The work ongoing in the Lochside and Lincluden oral health plan is focussing on increasing registration from an early age and for older people.

Table 7 Age breakdown of Lochside and Lincluden area population registered for NHS Dental Care

Age band	Percentage of Lochside and Lincluden area residents registered with any dentist as at September 2017
0 to 2 years	38%
3 to 5 years	89%
6 to 12 years	102%
13 to 17 years	103%
18 to 24 years	104%
25 to 34 years	99%
35 to 44 years	96%
45 to 54 years	84%
55 to 64 years	78%
65 to 74 years	75%
75 years and over	70%
No age stated	N/A
All children (0 to 17 years)	90%
All adults (18 years and over)	88%
All ages (including no age stated)	88%

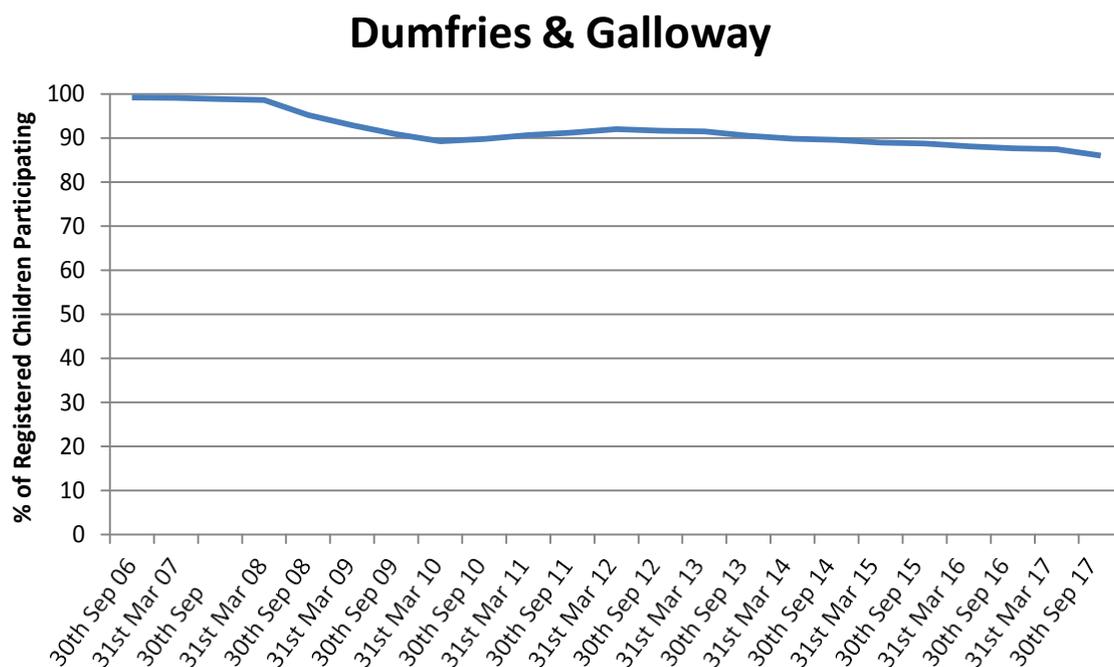
NHS Dental Participation

Participation in NHS Dental Services in Dumfries and Galloway

Participation in NHS Dental Services is defined as any patient who is registered with an NHS Dentist and who has had contact with NHS dental services for examination or treatment in the last two years. At a Scottish level at September 2017, 71% of those registered had seen an NHS dentist within the last two years, 85% of children registered and 67% of registered adults. For Dumfries and Galloway, 75% of the

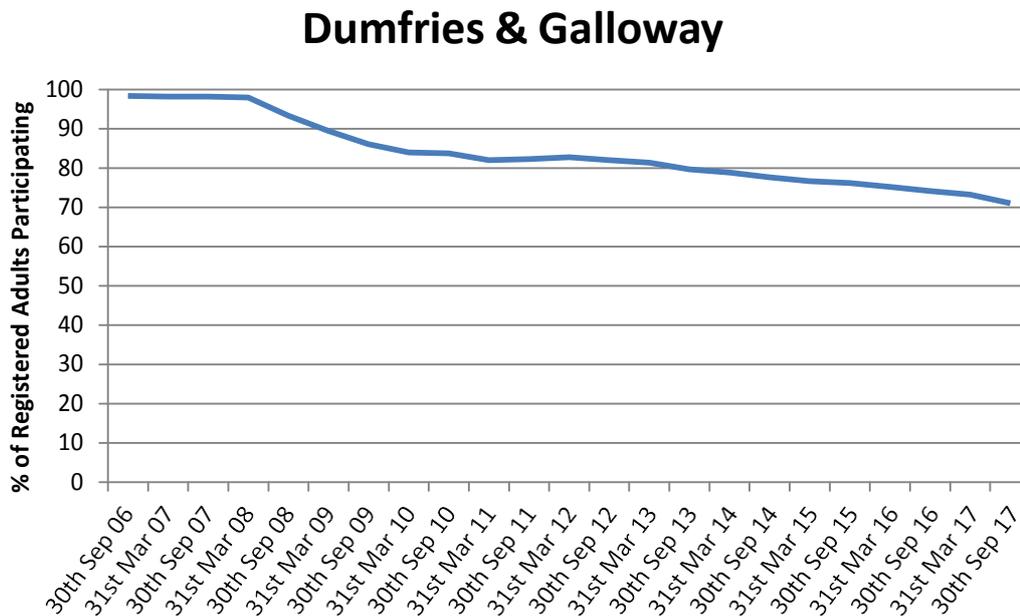
total registered population participated with 86% of children registered and 71% of registered adults participating. Nationally there has been a steady decline in participation rates since the implementation of lifelong registration in 2006. This has been accompanied by a rise in overall registration rates. Children are more likely than adults to have seen an NHS dentist within the last two years (85% compared to 67%). Participation rates also vary by age group, in 2017 those in the 18-24 years, 25-34 years and 75 years and over had the lowest participation rates with participation at 64%, 63% and 66% respectively. The trends for participation in Dumfries and Galloway for children and adults are demonstrated in Figures 9 and 10 respectively. Those living in the most deprived areas were less likely to see their dentist within the last two years than those living in the least deprived areas. At a Scottish level for children living in the most deprived areas 81% had participated, with 90% having participated in the least deprived areas. For adults the participation figures for those living in the most deprived were 63% versus 74% in the least deprived areas.

Figure 9 Percentage of registered patients participating in GDS; NHS Dumfries and Galloway from 30th September 2006 to 30th September - Children



Source: ISD

Figure 9 Percentage of registered patients participating in GDS; NHS Dumfries and Galloway from 30th September 2006 to 30th September 2017 - Adults



Source: ISD

Participation in NHS Dental Services Lochside and Lincluden area residents

Local analysis was undertaken based on data available as at 31st of January 2016 and 30th September 2017 for participation of those living in Dumfries and Galloway and the Lochside and Lincluden area - both for those registered at the Lochside clinic and those registered elsewhere. (NB this analysis was undertaken using CHI populations and therefore varies slightly from the ISD figures for participation for Dumfries and Galloway which used population estimates). The results of this analysis are outlined in **Table 8**. This demonstrates that more work is needed to encourage participation in NHS dental services for those living in the Lochside and Lincluden area.

Table 8 Percentage participation in NHS Dental Services Scotland, Dumfries and Galloway and Lochside and Lincluden Area

	Scotland*	D&G All residents**	Lochside Lincluden Area- All residents**	Lochside Lincluden Residents - Registered outwith Lochside clinic**	Lochside Lincluden Residents - Registered at Lochside Clinic**
% Participated in NHS Dental Services in the last 2 years Jan 2016	72%	77%	70%	71%	61%
% Participated in NHS Dental Services in the last 2 years September 2017	71%	75%	68%	67%	63%

*Information Services Division Data

** Local Analysis of ISD Data

5. Conclusion

5.1 This paper presents the first oral health monitoring report to the Health and Social Care Partnership. It includes a particular focus on the Lochside and Lincluden area following the decision to withdraw services from the Lochside Dental Clinic. Whilst the report demonstrates many positive features in relation to improved oral health and availability of access to NHS Dental services, it also highlights a number of areas of challenge regarding addressing inequalities in oral health. It is anticipated that the work ongoing in the Lochside and Lincluden area to implement the oral health improvement plan will help support addressing the causes of poor oral health. An updated report will be presented to Clinical and Care Governance Committee in April 2019.

SECTION 2: COMPLIANCE WITH GOVERNANCE STANDARDS

6. Resource Implications

- 6.1 None noted at the present time, Lochside and Lincluden Oral Health Plan is being implemented within existing resources.

7. Impact on Integration Joint Board Outcomes, Priorities and Policy

- 7.1 Monitoring of oral health outcomes and access to preventive dental services and dental services contributes to Making the most of wellbeing and Reducing health inequalities.

8. Legal & Risk Implications

- 8.1 Not Applicable

9. Consultation

- 9.1 Not required, but Community Stakeholder Events held in support of the Lochside and Lincluden Oral Health Plan were audited against the Standards for Community Engagement and Participation. Work to take forward the Lochside and Lincluden Oral Health plan is being taken forward together with Community Partners using a co-production approach.

10. Equality and Human Rights Impact Assessment

- 10.1 All actions identified as part of the Equality and Diversity Impact Assessment regarding the decision to withdraw from Lochside Dental Clinic was implemented. This paper also represents the ongoing monitoring of the impact of this decision.

11. Glossary

CHI	Community Health Index
D ₃ MFT	Decayed Missing Filled Teeth (permanent teeth)
d ₃ mft	decayed missing filled teeth (deciduous teeth)
ISD	Information Services Division
P1	Primary 1
P7	Primary 7