



Designed to Smile

Activity Data: April 2013 – March 2014

Monitoring Report

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Executive Summary

This report details the Designed to Smile activity which took place between April 2013 and March 2014.

Settings: By the end of March 2014 the total number of schools and nurseries involved in Designed to Smile was 1,452. This includes 1,389 settings which took part in the tooth brushing element of the programme; 167 of these settings also took part in the fissure sealant and fluoride varnish elements of D2S. A further 63 settings were taking part in the fluoride varnish and/or the fissure sealant elements of D2S but were not tooth brushing.

Children tooth brushing: A total of 92,948 children were taking part in the supervised tooth brushing programme by the end of the reporting period. In schools agreeing to take part in the scheme, parental consent remained very high, at 95%.

Population coverage: 59.5% of all children aged from Pre-school-Year 2 in Wales are taking part in the programme (assuming a population denominator based on children aged 3-6). Whereas 8.5% of children in School Years 3-6 are taking part (assuming a population denominator of children aged 7-10).

Home packs: 230,744 home packs were distributed across Wales. On average 2.4 packs were distributed to each child taking part in the supervised tooth brushing element of Designed to Smile in pre-school-Year 2 settings.

Oral health promotion: Across Wales 5,831 and 4,288 parents attended either group oral health education or one to one sessions respectively.

Overall, 8,807 and 8,410 members of school/nursery staff received training in the implementation of supervised tooth brushing and wider oral health education respectively between April 2012 and March 2013. 91,126 children across Wales received oral health education sessions which incorporated not merely oral health education but also focussed on aspects such as nutrition and healthy food choices.

Quality assessment: A total of 10,414 quality assessments (QAs) were carried out across Wales between April 2013 and March 2014. These involved 248 instances of remedial measures being undertaken with 10 settings having to be temporarily suspended.

Fissure Sealant Programme activity: 8,495 children were assessed during April 2013-March 2014; 90 fewer children when compared with the previous year. The total number of teeth sealed during April 2013-March 2014 was 15,615 - 2,066 more than in April 2012-March 2013. Since the commencement of Designed to Smile local health boards have been refocusing their oral health promotion activity and this has implications for FSP activity.

Fluoride varnish activity: During 2013/14 there has been considerable growth in the Fluoride Varnish element of the programme. Across Wales there were 13,422 children receiving one application with an additional 8,199 having two applications of fluoride varnish.

Staff and costs: During this reporting period an additional 4 individuals were recruited to work on Designed to Smile. Since the scheme was introduced a total of 129 new staff have been recruited to work in the Wales' CDS. A total of £3,670,770 was spent on the Designed to Smile programme during 2013/14; representing 99% of the £3,717,000, allocated.

Targeting - Designed to Smile

- This chapter documents the settings (schools and nurseries) targeted for Designed to Smile, including the supervised tooth brushing (TB) and fluoride varnish (FV) elements. Designed to Smile is specifically aimed at children in Wales with the highest oral health need.
- Early in the planning stages of the project, the Welsh Oral Health Information Unit (WOHIU) produced a priority list of settings for each Community Dental Service (CDS) area, based on levels of deprivation and prevalence of dental caries in five year olds. The CDS teams used these priority lists as a guide to which settings they initially targeted. The original focus was on the supervised tooth brushing element of the programme.

Settings taking part in Designed to Smile

- There has been a steady increase in the number of settings agreeing to take part in Designed to Smile since its inception (Table 1). It is important to note that during the early years of the programme, 2009/10 and 2010/11, the focus was on the tooth brushing element of the programme. Monitoring data for the fluoride varnish element of Designed to Smile has only been collected since 2011/12.
- The total number of schools and nurseries agreeing to take part in Designed to Smile was 1,452 by the end of March 2014. This includes 1,389 settings agreeing to take part in the tooth brushing element of the programme; 167 of these settings also took part in the fissure sealant and fluoride varnish elements of D2S. A further 63 settings were taking part in the fluoride varnish and/or the fissure sealant elements of D2S but were not tooth brushing.

Table 1 The number of settings taking part in D2S (TB or FV) in April 2013 -2014 compared with previous years, by reporting LHB

	2009-10*	2010-11*	2011-12**	2012-13**		2013-14**	
Abertawe Bro Morgannwg	54	127	139	212		245	
Aneurin Bevan	21	100	157	208		211	
Betsi Cadwaladr	166	270	326	394		413	
Cardiff and Vale	232	341	413	384	186 C&V 198 CT	375	188 C&V 187 CT
Hywel Dda	42	84	147	162		174	
Powys	0	22	29	34		34	
Wales	515	944	1211	1394		1452	

*settings originally targeted were for the supervised tooth brushing element of the programme

**includes settings targeted for tooth brushing and fluoride varnish

#prior to 2012-13 data for Bridgend was recorded under Cardiff and Vale, from 2012-13 onwards data for Bridgend has been recorded in ABMU figures

- It should be noted that in Powys ten settings merged into three settings between 2012/13 and 2013/14. The CDS D2S team have taken on new settings during the period.
- Setting type is presented in Table 2. 29 special educational needs schools as defined by Welsh Government and an additional 17 settings referred to as special needs or with special needs units agreed to take part in the Designed to Smile initiative, with age ranges from 3-18.

Table 2 Types of setting agreeing to take part in D2S (any aspect) by LHB

LHB	Pre School (0-2)	Nursery (3-4)	Infants	Juniors	Primary	Special needs non WG	Special needs WG	Total
Abertawe Bro Morgannwg	107	0	5	2	124	0	7	245
Aneurin Bevan	84	4	1	1	117	0	4	211
Betsi Cadwaladr	224	0	13	8	161	7	0	413
Cardiff & Vale	71	3	1	0	102	0	11	188
Cwm Taf	99	4	9	3	67	0	5	187
Hywel Dda	71	2	3	2	87	7	2	174
Powys	9	1	6	0	15	3	0	34
WALES	665	14	38	16	673	17	29	1452

Table 3 Proportion of settings taking part in relation to total number of nursery/primary schools and children's day care, by LHB

Local Health Board	Total number of settings in LHB	Number of settings taking part in D2S	% of all settings taking part
Anuerin Bevan	464	211	45.5
ABMU	372	245	65.9
Betsi Cadwaladr	873	413	47.3
Cwm Taf	245	187	76.3
Cardiff and Vale	334	188	56.3
Hywel Dda	428	174	40.7
Powys	176	34	19.3
WALES	2892	1452	50.2

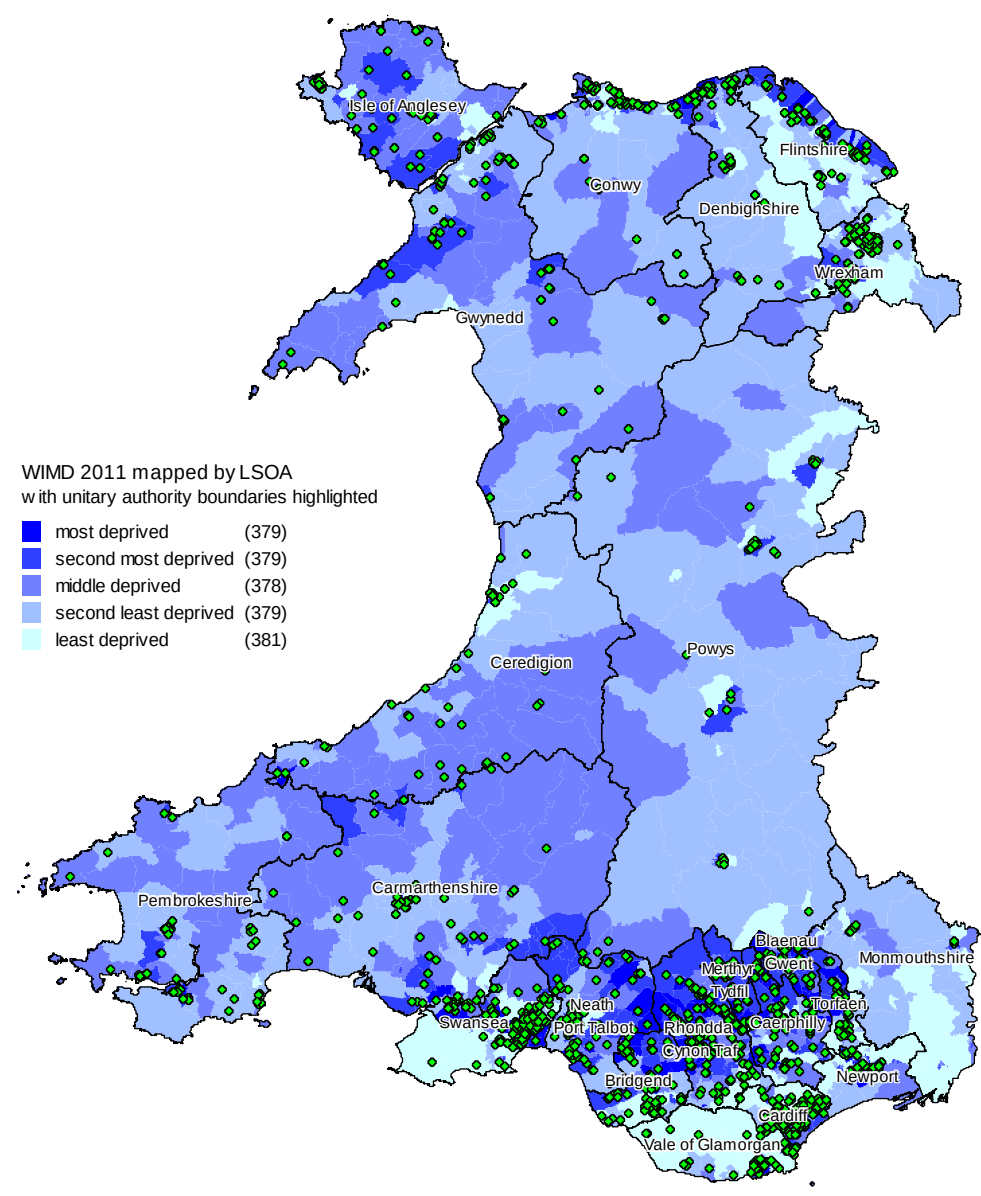
**Denominator for settings sourced from WG central school lists and CCSIW registered childcare*

- Table 3 provides an indication of setting coverage across Wales. The total number of settings has been calculated using centralised Welsh Government data on nursery and primary schools and CCSIW¹ data on registered child care. Designed to Smile is active in 50.2% (1452/2892) of these settings.

¹ Sourced CCSIW website 5th November 2014 – child care settings incorporating (children's day care, crèches, full day care, sessional day care and open access play provision).

- Figure 1 and Table 4a provide details of settings taking part in any element of in Designed to Smile by the Welsh Index of Multiple Deprivation (WIMD) 2011².
- Across Wales 56.6% of the 1452 settings taking part in Designed to Smile come from the second most and the most deprived categories Table 4a.
- Table 4a provides a breakdown of the deprivation quintiles for settings taking part in D2S for each LHB. Local D2S coordinators have justified the inclusion of some settings from the less deprived areas of Wales because their catchment areas include children from more deprived areas.

Figure 1 Settings agreeing to take part in Designed to Smile mapped by WIMD 2011



² For information on WIMD2011 consult the following: <http://wales.gov.uk/topics/statistics/theme/wimd/wimd2011/?lang=en>

- It is however recommended that local organisers review their targeting policies for those settings from the least and second least deprived categories in line with the 2014 How To Guide.
- Some of the variation can be explained by relative deprivation across geographical areas. In Blaenau Gwent for example 82% of settings come from the two most deprived groups because the deprivation is more concentrated within the unitary authority.
- In other parts of Wales the pockets of deprivation will result in a lower percentage of settings which are in the most deprived categories e.g. in Ceredigion where 16.3% come from the two most deprived groups (Table 4a). Although, in Ceredigion there has been some residual activity in less deprived areas because of pre-existing tooth brushing schemes which pre-dated D2S. This activity is currently being faded out.

Table 4a The proportion deprivation status of settings taking part according to WIMD 2011, by Unitary Authority

LHB	Unitary Authority	Number of settings taking part in D2S	% settings taking part in each deprivation quintile				
			Least deprived	Second least deprived	Middle deprived	Second most deprived	Most deprived
AB	Blaenau Gwent	49	0.0	4.1	14.3	32.7	49.0
AB	Caerphilly	66	3.0	1.5	25.8	27.3	42.4
AB	Monmouth	13	7.7	23.1	0.0	61.5	7.7
AB	Newport	43	0.0	0.0	9.3	16.3	74.4
AB	Torfaen	40	0.0	15.0	20.0	40.0	25.0
ABMU	Bridgend	72	19.4	12.5	6.9	22.2	38.9
ABMU	Neath Port Talbot	76	6.6	19.7	15.8	27.6	30.3
ABMU	Swansea	97	24.7	7.2	15.5	18.6	34.0
BC	Anglesey	52	1.9	0.0	34.6	38.5	25.0
BC	Conwy	73	9.6	17.8	19.2	35.6	17.8
BC	Denbighshire	56	18.9	18.9	39.6	3.8	18.9
BC	Flintshire	63	7.9	15.9	9.5	36.5	30.2
BC	Gwynedd	74	2.7	20.3	32.4	39.2	5.4
BC	Wrexham	95	9.5	12.6	29.5	28.4	20.0
CT	Merthyr	50	4.3	0.0	14.9	34.0	44.7
CT	RCT	137	6.8	5.3	9.0	33.8	45.1
CV	Cardiff	133	14.3	12.8	15.0	15.8	42.1
CV	Vale Glamorgan	55	35.2	9.3	22.2	18.5	14.8
HD	Carmarthenshire	77	1.3	22.1	29.9	29.9	16.9
HD	Ceredigion	43	18.6	16.3	48.8	11.6	4.7
HD	Pembrokeshire	54	0.0	31.5	35.2	24.1	9.3
P	Powys	34	17.6	20.6	20.6	41.2	0.0
	WALES	1452	9.9	12.4	20.7	27.1	29.1

Settings offered D2S and participation in constituent elements

- Between April 2013 and March 2014, a total of 1,525 settings were offered Designed to Smile across Wales (Tables 4b and 5).
- Table 4b provides a picture of settings offered D2S by deprivation quintile for each health board. Table 5 provides details of unitary authority participation rates within each health board.
- 1,389 settings were taking part in the supervised tooth brushing core element of D2S, culminating in a Principality wide participation rate of 91%. Setting tooth brushing participation rate ranged from 85% in Cardiff and Vale University Health Board area to 98% in Abertawe Bro Morgannwg Health Board (Table 5).

Table 4b Targeting by quintile of deprivation

	All settings offered D2S during the period	Settings brushing	No to TB but yes to FS_FV	Not yet targeted	Refused or No to any aspect of D2S	With-drawn	Suspended	Closed	% deprivation breakdown of settings taking part
Abertawe Bro Morgannwg	247	243	2		2				
Least deprived	43	43							17.6
Second least deprived	31	31							12.7
Middle deprived	32	32							13.1
Second most deprived	55	55							22.4
Most deprived	86	82	2		2				34.3
Aneurin Bevan	211	186	25						
Least deprived	3	3							1.4
Second least deprived	12	11	1						5.7
Middle deprived	36	30	6						17.1
Second most deprived	65	57	8						30.8
Most deprived	95	85	10						45.0
Betsi Cadwaladr	449	401	9	2	15	12		10	
Least deprived	40	34			2	2		2	8.3
Second least deprived	65	60			2	1		2	14.6
Middle deprived	125	109	2		8	4		2	27.1
Second most deprived	135	124	3		2	3		3	31.0
Most deprived	84	74	4	2	1	2		1	19.0
Cardiff & Vale	201	171	16		9	3		2	
Least deprived	41	36	2		2		1		20.3
Second least deprived	25	19	3		3				11.8
Middle deprived	35	31	1			2	1		17.1
Second most deprived	33	26	5		2				16.6
Most deprived	67	59	5		2	1			34.2
Cwm Taf	197	180		3	1	7		3	3
not geocoded	2	1				1			0.6
Least deprived	12	11						1	6.1
Second least deprived	8	7				1			3.9
Middle deprived	21	19		1			1		10.6
Second most deprived	65	61		1	1	2			33.9
Most deprived	89	81		1		3	2	2	45.0
Hywel Dda	181	174		3		3		1	
Least deprived	10	9		1					5.2
Second least deprived	43	41		1				1	23.6
Middle deprived	66	63				3			36.2
Second most deprived	41	41							23.6
Most deprived	21	20		1					11.5
Powys	39	34		2	3				
Least deprived	7	6		1					17.6
Second least deprived	8	7			1				20.6
Middle deprived	7	7							20.6
Second most deprived	17	14		1	2				41.2
WALES	1525	1389	52	10	30	25	5	14	
not geocoded	2	1				1			0.1
Least deprived	156	142	2	2	4	2	1	3	10.0
Second least deprived	192	176	4	1	6	2		3	12.5
Middle deprived	322	291	9	1	8	9	2	2	20.8
Second most deprived	411	378	16	2	7	5		3	27.3
Most deprived	442	401	21	4	5	6	2	3	29.3

- Across Wales an additional 39 settings were classified as taking part in the supervised tooth brushing element of the programme during this reporting period when compared with April 2012-March 2013, where a total of 1350 settings were taking part.

Table 5 Settings targeted for Designed to Smile by UA within each LHB

LHB	UA	All settings offered D2S during the period	Settings brushing	No to brushing, Yes to FV or FS	Not yet targeted	Refused or No to any aspect of D2S	With- drawn	Sus- pended	Closed	% taking part in TB	% refused or with- drawn
Abertawe Bro Morgannwg	Bridgend	72	72	0		0				100	0
	Neath Port Talbot	78	74	2		2				94.9	2.6
	Swansea	97	97	0		0				100.0	0.0
ABMU TOTAL		247	243	2		2				98.4	0.8
Aneurin Bevan	Blaenau Gwent	49	39	10		0				79.6	0.0
	Caerphilly	66	58	8		0				87.9	0.0
	Monmouth	13	13	0		0				100.0	0.0
	Newport	43	37	6		0				86.0	0.0
	Torfaen	40	39	1		0				97.5	0.0
AB TOTAL		211	186	25		0				88.2	0.0
Betsi Cadwaladr	Anglesey	58	52	0	0	3	0		3	89.7	5.2
	Conwy	80	68	5	0	1	3		3	85.0	5.0
	Denbighshire	61	51	2	1	2	4		1	83.6	9.8
	Flintshire	67	62	1	1	1	2		0	92.5	4.5
	Gwynedd	80	73	1	0	4	1		1	91.3	6.3
	Wrexham	103	95	0	0	4	2		2	92.2	5.8
BC TOTAL		449	401	9	2	15	12		10	89.3	6.0
Cardiff & Vale	Cardiff	143	120	13	0	7	1	2	0	83.9	5.6
	Vale Glamorgan	58	51	3	0	2	2	0	0	87.9	6.9
CV TOTAL		201	171	16	0	9	3	2	0	85.1	6.0
Cwm Taf	Merthyr	53	47	0	0	1	4	1	0	88.7	9.4
	RCT	144	133	0	3	0	3	2	3	92.4	2.1
CT TOTAL		197	180	0	3	1	7	3	3	91.4	4.1
Hywel Dda	Cardiganshire	81	77	0	1	0	3		0	95.1	3.7
	Ceredigion	45	43	0	2	0	0		0	95.6	0.0
	Pembrokeshire	55	54	0	0	0	0		1	98.2	0.0
HD TOTAL		181	174	0	3	0	3		1	96.1	1.7
Powys	Powys	39	34	0	2	3				87.2	7.7
P TOTAL		39	34	0	2	3				87.2	7.7
WALES		1525	1389	52	10	30	25	5	14	91.1	3.6

- 30 settings declined to take part in the scheme between April 2013 – March 2014. The highest numbers of refusals were reported by Betsi Cadwaladr University Health Board and Cardiff and the Vale University Health Board with 9 and 15 refusals respectively (Table 5). Reasons included staffing issues and wanting to observe other settings before taking part. A further 25 settings withdrew from the scheme and 14 settings closed during 2013/14.
- Table 5 presents a breakdown of the settings targeted by unitary authority, within LHBs. Unitary authority level participation rates in the tooth brushing element of D2S ranged from 80% in Blaenau Gwent to 100% in Bridgend and Monmouthshire. It should be noted that the 10 settings in Blaenau Gwent not taking part in the supervised tooth brushing were all taking part in either the FV and/or the FSP.
- It should be noted that those not yet targeted were not necessarily scheduled to be targeted during 2013/14 but will be during the next reporting period.

Supervised tooth brushing

Total settings in D2S **1,452**

Total settings brushing **1,389**

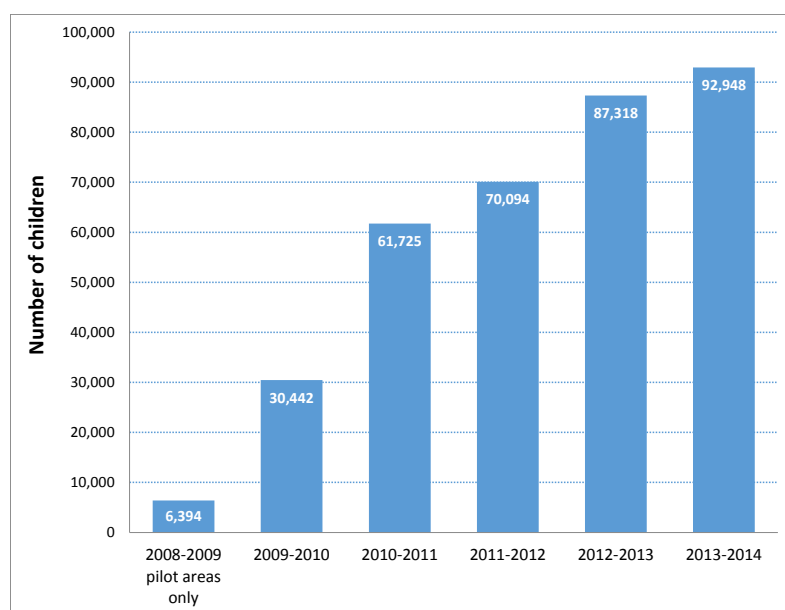
Total children brushing **92,948**

Total money spent **£3,670,770**

AREA	Total settings brushing	Total children brushing
Blaenau Gwent	39	2488
Caerphilly	58	3418
Monmouth	13	697
Newport	37	2333
Torfaen	39	3052
Aneurin Bevan	186	11,988
Bridgend	72	5441
Neath Port Talbot	74	6248
Swansea	97	10961
ABMU	243	22,650
Anglesey	52	2243
Conwy	68	3071
Denbighshire	51	2245
Flintshire	62	4821
Gwynedd	73	2999
Wrexham	92	5790
Betsi Cadwaladr	401	21,169
Cardiff	120	9966
Vale Glamorgan	51	3872
Cardiff & Vale	171	13,838
Merthyr	47	2888
RCT	133	9104
Cwm Taf	180	11,992
Carmarthenshire	77	3892
Ceredigion	43	1680
Pembrokeshire	54	3471
Hywel Dda	174	9,043
Powys	34	2,268
WALES	1,389	92,948

- Since Designed to Smile was introduced into Wales there has been a steady increase in the numbers of children tooth brushing in schools and nurseries (Figure 2). Between 2012/13 and the current reporting period the total number of children brushing has increased by 5,630 (to 92,948). In 2012/13 the total number of children brushing was 87,318.

Figure 2 The numbers of children taking part in the tooth brushing element of Designed to Smile since the inception of the programme



Population Coverage – Tooth brushing

- Population coverage rates are presented below. CDS data returns highlight whether children are nursery aged, in reception or school year 1, 2, 3 etc. Unfortunately it is not possible to disentangle data relating to age for mixed age classes.
- Consequently various population coverage rates have been calculated with different numerators and denominators. Assuming a population denominator based on children aged 2-6, 47.3% of children from Pre-school-Year 2 in Wales are taking part in the programme (Tables 6&7). Using the same denominator, the coverage for this age group ranged from 31.8% in Powys to 65.4% in Cwm Taf (Table 7).
- Whereas 8.5% of children in School Years 3-6 are taking part (assuming a population denominator of children aged 7-10).

Table 6 Population coverage across Wales – various denominators

Age group	Number of children brushing	Denominator	% coverage
Pre-school - School Year 2	81,931	137684*	59.5
Pre-school - School Year 2	81,931	173342**	47.3
Pre-school - School Year 1	70,086~	104196***	67.3
School Years 3-6	11,017	129473****	8.5

*based on single year age bands from 2011 Census - ages 3-6

**based on single year age bands from 2011 Census - ages 2-6

***based on single year age bands from 2011 Census - ages 3-5

****based on single year age bands from 2011 Census - ages 7-10

~numerator excludes school year 2 but includes school year 1 and younger (i.e. Pre-school, Reception, Year1 and SN Primary) - best approximate to 5 and unders brushing. Also note that some mixed classes include under and over 5s. So it is difficult to get an exact numerator here.

Table 7 Population coverage by Health Board

	Number brushing nursery-Yr2	Denominator children aged 2_6	Coverage	Number brushing Years 3_6	Denominator children aged 7_10	Coverage
WALES	81,931	173342	47.3	11,017	129473	8.5
ABMU	17,709	28251	62.7	4,941	21781	22.7
Aneurin Bevan	11,793	34034	34.7	195	25695	0.8
Betsi Cadwaldr	16,943	38869	43.6	4,226	28609	14.8
Cardiff and Vale	13,672	27921	49.0	166	19627	0.8
Cwm Taf	11,444	17501	65.4	548	12662	4.3
Hywel Dda	8,252	20101	41.1	791	15653	5.1
Powys	2,118	6665	31.8	150	5446	2.8

Consent rates

- The CDS are required to obtain informed consent from parents or guardians of each child before they can take part in the tooth brushing programme.
- Tables 8 and 9 present data on children brushing by Preschool-Year 2 and Years 3-6 respectively. The total number of children eligible for inclusion across Wales in the tooth brushing element of the programme was 97,604; with parents/guardians providing consent for 93,149 children (95.4%); and 92,948 (95.2%) actually brushing during the period.
- Consent rates again were very high for the scheme. The overall consent rate for Wales was 95.4% (95.5% and 95.2% for PS-Yr2 and Years 3-6 respectively). There was a range of experience across Wales, for example amongst Preschool-Year 2 children unitary authority consent rates ranged from 90.7% in Powys to 99.9% in Flintshire and Merthyr Tydfil (Table 8).
- Reporting LHB consent rates are presented in Figure 3.

- In Aneurin Bevan, whilst consent rates remained high, a number of schools had lost consent forms for the programme through school merges or classroom moves and therefore a considerable amount of staff time was spent re-consenting children.

Figure 3: Percentage children with consent by reporting LHB and targeted age groups

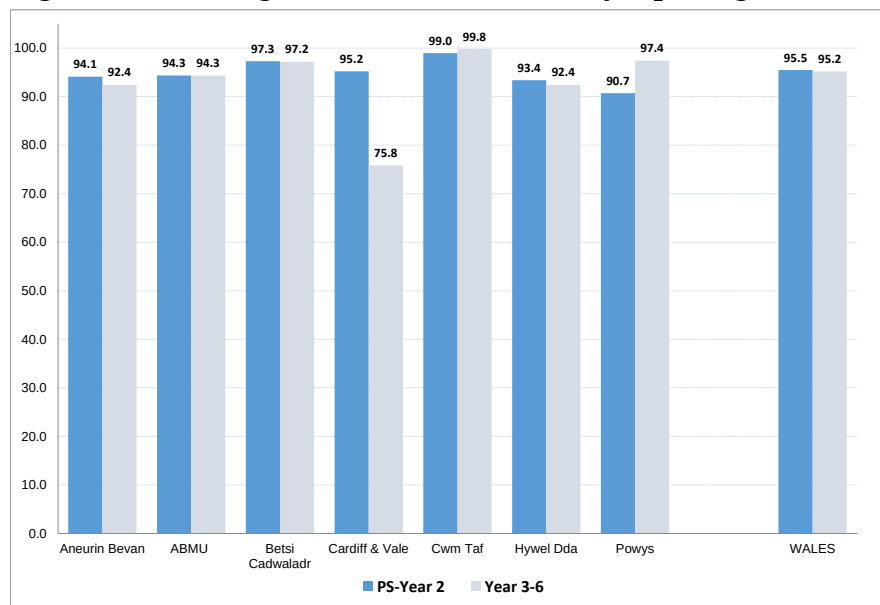


Table 8 Children brushing across Wales: Preschool-Year 2

LHB	UA	Number of settings	Number of classes	Children eligible for inclusion	Number whose parents consent	% of children with consent	Total children brushing
Aneurin Bevan	Blaenau Gwent	39	77	2,629	2,488	94.6	2,488
Aneurin Bevan	Caerphilly	57	129	3,402	3,285	96.6	3,285
Aneurin Bevan	Monmouth	13	22	744	697	93.7	697
Aneurin Bevan	Newport	36	69	2,510	2,333	92.9	2,333
Aneurin Bevan	Torfaen	39	91	3,248	2,990	92.1	2,990
AB TOTAL		184	388	12,533	11,793	94.1	11,793
ABMU	Bridgend	70	159	5,507	5,314	96.5	5,296
ABMU	Neath Port Talbot	70	186	4,881	4,581	93.9	4,581
ABMU	Swansea	92	255	8,402	7,832	93.2	7,832
ABMU TOTAL		232	600	18,790	17,727	94.3	17,709
Betsi Cadwaladr	Anglesey	51	114	1,759	1,640	93.2	1,640
Betsi Cadwaladr	Conwy	66	115	2,859	2,767	96.8	2,767
Betsi Cadwaladr	Denbighshire	51	88	2,010	1,911	95.1	1,908
Betsi Cadwaladr	Flintshire	61	135	3,441	3,438	99.9	3,438
Betsi Cadwaladr	Gwynedd	73	154	2,656	2,556	96.2	2,556
Betsi Cadwaladr	Wrexham	92	180	4,691	4,634	98.8	4,634
BC TOTAL		394	786	17,416	16,946	97.3	16,943
Cardiff & Vale	Cardiff	116	327	10,396	9,839	94.6	9,806
Cardiff & Vale	Vale Glamorgan	48	130	4,086	3,947	96.6	3,866
CV TOTAL		164	457	14,482	13,786	95.2	13,672
Cwm Taf	Merthyr	47	111	2,802	2,798	99.9	2,798
Cwm Taf	RCT	135	310	8,762	8,646	98.7	8,646
CT TOTAL		182	421	11,564	11,444	99.0	11,444
Hywel Dda	Carmarthenshire	74	196	3,760	3,625	96.4	3,625
Hywel Dda	Ceredigion	41	83	1,647	1,494	90.7	1,447
Hywel Dda	Pembrokeshire	50	105	3,491	3,190	91.4	3,180
HD TOTAL		165	384	8,898	8,309	93.4	8,252
Powys	Powys	32	107	2,344	2,126	90.7	2,118
WALES		1,353	3,143	86,027	82,131	95.5	81,931

Table 9 Children brushing across Wales: Year 3-6

LHB	UA	Number of settings	Number of classes	Children eligible for inclusion	Number whose parents consent	% of children with consent	Total children brushing
Aneurin Bevan	Caerphilly	5	8	138	133	96.4	133
Aneurin Bevan	Torfaen	1	3	73	62	84.9	62
AB TOTAL		6	11	211	195	92.4	195
ABMU	Bridgend	3	8	145	145	100.0	145
ABMU	Neath Port Talbot	26	82	1,770	1,667	94.2	1,667
ABMU	Swansea	42	149	3,323	3,129	94.2	3,129
ABMU TOTAL		71	239	5,238	4,941	94.3	4,941
Betsi Cadwaladr	Anglesey	15	61	631	603	95.6	603
Betsi Cadwaladr	Conwy	4	14	330	304	92.1	304
Betsi Cadwaladr	Denbighshire	6	24	391	337	86.2	337
Betsi Cadwaladr	Flintshire	20	63	1,385	1,383	99.9	1,383
Betsi Cadwaladr	Gwynedd	15	44	445	443	99.6	443
Betsi Cadwaladr	Wrexham	15	61	1,167	1,156	99.1	1,156
BC TOTAL		75	267	4,349	4,226	97.2	4,226
Cardiff & Vale	Cardiff	4	6	213	160	75.1	160
Cardiff & Vale	Vale Glamorgan	1	1	6	6	100.0	6
CV TOTAL		5	7	219	166	75.8	166
Cwm Taf	Merthyr	1	3	90	90	100.0	90
Cwm Taf	RCT	6	19	459	458	99.8	458
CT TOTAL		7	22	549	548	99.8	548
Hywel Dda	Carmarthenshire	12	39	267	267	100.0	267
Hywel Dda	Ceredigion	12	42	255	234	91.8	233
Hywel Dda	Pembrokeshire	8	16	335	291	86.9	291
HD TOTAL		32	97	857	792	92.4	791
POWYS TOTAL	Powys	5	17	154	150	97.4	150
WALES		201	660	11,577	11,018	95.2	11,017

Frequency of brushing

- Reported frequency of tooth brushing during the week, was as follows for the six reporting Health Board areas:

Table 10 Reported frequency of tooth brushing during the school week by LHB

LHB	Nursery - Year 2	Year 3 - 6	All
Aneurin Bevan	4.8	5.0	4.8
ABMU	4.7	4.6	4.7
Betsi Cadwaladr	4.6	4.8	4.6
Cardiff & Vale	4.7	4.7	4.7
Cwm Taf	4.9	4.7	4.9
Hywel Dda	5.0	4.8	4.9
Powys	4.2	4.3	4.2
WALES	4.7	4.7	4.7

- A unitary authority analysis is presented in Table 11. The average number of times per week that Pre-school – Year 2 settings carry out brushing ranged from 4.1 in Gwynedd to 5 in Flintshire, Bridgend, Carmarthenshire and Ceredigion.
- Whilst for Years 3-6 the range was from 4.3 in Powys to 5 times per week for Caerphilly, Torfaen, Bridgend, Denbighshire, Flintshire, Wrexham, the Vale of Glamorgan, Merthyr Tydfil and Pembrokeshire.

Table 11 Reported frequency of tooth brushing during the school week by UA

LHB	UA	Nursery - Year 2			Years 3 - 6		
		Number of settings	Classes brushing	Average number of times brushing per week	Number of settings	Classes brushing	Average number of times brushing per week
Aneurin Bevan	Blaenau Gwent	39	77	4.8	0	0	N/A
Aneurin Bevan	Caerphilly	57	129	4.8	5	8	5.0
Aneurin Bevan	Monmouth	13	22	4.9	0	0	N/A
Aneurin Bevan	Newport	36	69	4.4	0	0	N/A
Aneurin Bevan	Torfaen	39	91	4.9	1	3	5.0
ABMU	Bridgend	70	160	5.0	3	8	5.0
ABMU	Neath Port Talbot	70	186	4.7	26	82	4.7
ABMU	Swansea	92	255	4.6	42	149	4.5
Betsi Cadwaladr	Anglesey	51	114	4.7	15	61	4.5
Betsi Cadwaladr	Conwy	66	115	4.3	4	14	4.6
Betsi Cadwaladr	Denbighshire	51	88	4.9	6	24	5.0
Betsi Cadwaladr	Flintshire	61	135	5.0	20	63	5.0
Betsi Cadwaladr	Gwynedd	73	154	4.1	15	44	4.4
Betsi Cadwaladr	Wrexham	92	180	4.7	15	61	5.0
Cardiff & Vale	Cardiff	116	327	4.7	4	6	4.7
Cardiff & Vale	Vale Glamorgan	48	130	4.8	1	1	5.0
Cwm Taf	Merthyr	47	111	4.9	1	3	5.0
Cwm Taf	RCT	135	310	4.9	6	19	4.7
Hywel Dda	Carmarthenshire	74	215	5.0	12	39	4.7
Hywel Dda	Ceredigion	41	83	5.0	12	42	4.9
Hywel Dda	Pembrokeshire	50	116	4.9	8	16	5.0
Powys	Powys	32	107	4.2	5	17	4.3
WALES		1,353	3174	4.7	201	660	4.7

Children receiving oral health education (OHE)

Children taking part in Designed to Smile receive oral health education sessions which include information on the wider determinants of health such as diet and nutrition. These sessions are given to children taking part in the supervised tooth brushing and the fluoride varnish/fissure sealant elements of the programme.

Table 12: Children receiving oral health education sessions

	Nursery - Year 2			Years 3 - 6		
	Number of settings	Number of children eligible	Number of children taking part in wider oral health	No. settings	No. of children eligible	No. of children taking part in wider oral health
Aneurin Bevan	183	12422	12422	81	7608	7608
Blaenau Gwent	39	2595	2595	21	1825	1825
Caerphilly	57	3402	3402	27	1401	1401
Monmouth	13	744	744	4	496	496
Newport	36	2510	2510	16	1939	1939
Torfaen	38	3171	3171	13	1947	1947
ABMU	233	19070	18812	72	5577	5577
Bridgend	70	5516	5715	3	145	145
Neath Port Talbot	70	4937	4937	26	1759	1759
Swansea	93	8617	8160	43	3673	3673
Betsi Cadwaladr	390	17206	17206	71	4171	4171
Anglesey	51	1738	1738	15	631	631
Conwy	66	2859	2859	4	330	330
Denbighshire	49	1994	1994	4	333	333
Flintshire	59	3376	3376	18	1299	1299
Gwynedd	73	2649	2649	15	445	445
Wrexham	92	4590	4590	15	1133	1133
Cwm Taf	39	3650	3496	25	2804	2983
Merthyr	8	654	646	6	621	908
RCT	31	2996	2850	19	2183	2075
Cardiff & Vale	90	7043	6387	42	5602	5612
Cardiff	56	4947	4494	32	4447	4457
Vale Glamorgan	34	2096	1893	10	1155	1155
Hywel Dda	59	2457	1555	56	2909	2220
Carmarthenshire	43	1857	1236	29	1571	1073
Ceredigion	12	498	217	6	366	175
Pembrokeshire	4	102	102	21	972	972
Powys	29	2141	1762	16	1383	1315
Powys	29	2141	1762	16	1383	1315
WALES	1023	63989	61640	363	30054	29486

- 91,126 children across Wales received oral health education sessions which incorporated not merely OHP but also focussed on aspects such as nutrition and healthy food choices; 61,640 children from Pre-school – School Year 2 and 29,486 from School Years 3-6 (Table 12).
- Up until this reporting year this activity has been increasing over time as the Designed to Smile programme has been developing. This year however, there has been a fall in activity which is likely to be linked to the fact that the programme is now well established and most children have already received their OHE sessions (Figures 4 & 5).

Figure 4: Children receiving oral health education sessions in 2013/14 compared with previous years

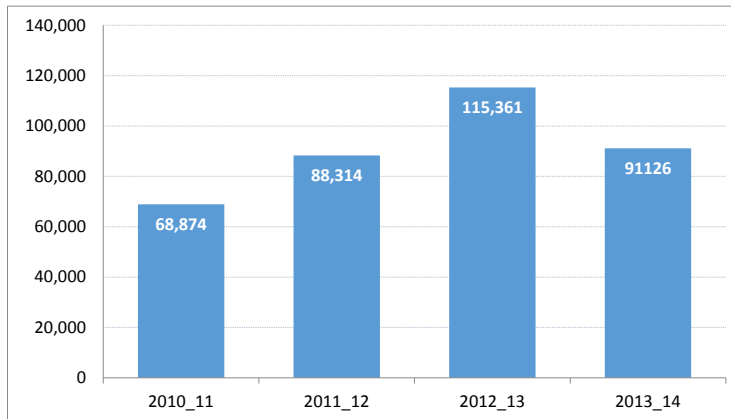
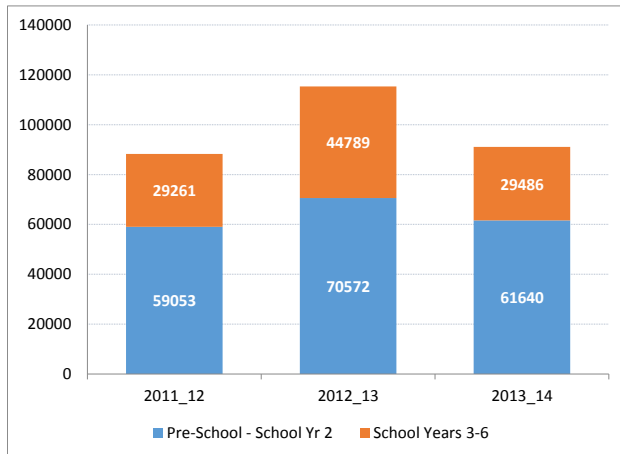


Figure 4: Children receiving oral health education sessions in 2013/14 compared with previous years split by age group



- Numbers of children eligible to receive the wider OHE referred to in Table 12 do not tally with the numbers taking part in the supervised tooth brushing (Table 8 and 9). The denominator for this characteristic is likely to include all children taking part in Designed to Smile: tooth brushing, fluoride varnish and fissure sealant programmes. It is beyond the scope of the current monitoring system to check whether these children are mutually exclusive.

Home packs

- In each classroom where tooth brushing is taking place, the CDS aim to provide each child with two 'home packs' per school/nursery year. The home packs contain a toothbrush and fluoride toothpaste, in order to facilitate and encourage children to continue brushing in their home environment.

Table 13 Home packs sent out – for settings taking part in the TB element of D2S

Local health board	UA	Pre-school - Year 2					Year 3 - 6				
		Number of settings	Number of classes	Number of children brushing	Number of packs distributed	Number of packs per child	Number of settings	Number of Classes	Number of children brushing	Number of packs distributed	Number of packs per child
Aneurin Bevan	Blaenau Gwent	39	77	2488	7855	3.2					
Aneurin Bevan	Caerphilly	57	129	3285	9732	3.0	5	8	133	414	3.1
Aneurin Bevan	Monmouth	13	22	697	2232	3.2					
Aneurin Bevan	Newport	36	69	2333	6378	2.7					
Aneurin Bevan	Torfaen	39	91	2990	9706	3.2	1	3	62	219	3.5
Aneurin Bevan		184	388	11,793	35,903	3.0	6	11	195	633	3.2
ABMU	Bridgend	70	159	5296	16500	3.1	3	8	145	435	3.0
ABMU	Neath Port Talbot	70	186	4581	14578	3.2	26	82	1667	5283	3.2
ABMU	Swansea	92	255	7832	23734	3.0	42	149	3129	9963	3.2
ABMU		232	600	17,709	54,812	3.1	71	239	4,941	15,681	3.2
Betsi Cadwaladr	Anglesey	51	114	1640	5252	3.2	15	61	603	1881	3.1
Betsi Cadwaladr	Conwy	66	115	2767	8577	3.1	4	14	304	990	3.3
Betsi Cadwaladr	Denbighshire	51	88	1908	6002	3.1	6	24	337	1164	3.5
Betsi Cadwaladr	Flintshire	61	135	3438	10102	2.9	20	63	1383	4003	2.9
Betsi Cadwaladr	Gwynedd	73	154	2556	7829	3.1	15	44	443	1335	3.0
Betsi Cadwaladr	Wrexham	92	180	4634	13899	3.0	15	61	1156	3498	3.0
Betsi Cadwaladr		394	786	16,943	51,661	3.0	75	267	4,226	12,871	3.0
Cardiff & Vale	Cardiff	116	327	9806	16303	1.7	4	6	160	0	0.0
Cardiff & Vale	Vale Glamorgan	48	130	3866	7959	2.1	1	1	6	20	3.3
Cardiff & Vale		164	457	13,672	24,262	1.8	5	7	166	20	0.1
Cwm Taf	Merthyr	47	111	2798	2993	1.1	1	3	90	0	0.0
Cwm Taf	RCT	135	310	8646	10016	1.2	6	19	458	131	0.3
Cwm Taf		182	421	11,444	13,009	1.1	7	22	548	131	0.2
Hywel Dda	Carmarthenshire	74	196	3625	5694	1.6	12	39	267	514	1.9
Hywel Dda	Ceredigion	41	83	1447	2082	1.4	12	42	233	512	2.2
Hywel Dda	Pembrokeshire	50	105	3180	5143	1.6	8	16	291	802	2.8
Hywel Dda		165	384	8,252	12,919	1.6	32	97	791	1,828	2.3
Powys	Powys	32	107	2118	6598	3.1	5	17	150	416	2.8
WALES		1353	3143	81,931	199,164	2.4	201	660	11017	31580	2.9

- Table 13 shows the number of home packs sent out by each health board and their constituent unitary authorities during the twelve month period for the supervised tooth brushing element of Designed to Smile.
- 230,744 packs were distributed between April 2013 and March 2014; 199,164 to Pre-school – Year 2 children and 31,580 to children in school years 3-6. This represents an increase of 2,658 packs compared with the previous year when 228,086 home packs were distributed.
- Across Wales an average of 2.4 packs were distributed to Preschool – Year 2 children; ranging from 1.1 packs per child in Merthyr Tydfil to 3.2 packs in Blaenau Gwent, Monmouth, Torfaen, Neath Port Talbot and Anglesey. Whereas, an average of 2.9 packs were distributed to children from Years 3-6; this ranged from 1.9 pack in Carmarthenshire to 3.5 in Torfaen and Denbighshire (Table 13).

Table 14 Home packs related to the Fissure Sealant and Fluoride Varnish elements of D2S and “other” activity

Area	Settings taking part in Fissure Sealant element only		Settings taking part in Fluoride Varnish element only		Settings taking part in both FV and FS		Average no. packs distributed to children for FS and/or FV	Home packs related to other activity	
	No. of packs delivered to settings	Number of children who received packs	No. of packs delivered to settings	Number of children who received packs	No. of packs delivered to settings	Number of children who received packs		No. of packs delivered to settings	Number of children who received packs
Aneurin Bevan	4073	1292	75	25	13099	4351	3.0		
Blaenau Gwent	1126	397	75	25	2722	924	2.9		
Caerphilly	1450	395			2916	972	3.2		
Monmouth					1452	484	3.0		
Newport	1497	500			2520	808	3.1		
Torfaen					3489	1163	3.0		
Betsi Cadwaladr	10398	3464			1509	503	3.0	4583	4583
Anglesey	237	79			108	36	3.0	476	476
Conwy	1821	607					3.0	897	897
Denbighshire	4284	1428			102	34	3.0	749	749
Flintshire	1464	488			1299	433	3.0	1110	1110
Gwynedd	1758	586					3.0	427	427
Wrexham	828	276					3.0	924	924
Cardiff & Vale			12026	10601	1163	907	1.1	2151	1653
Cardiff			9123	8394	1163	907	1.1	999	734
Vale Glamorgan			2903	2207			1.3	1152	919
Cwm Taf			300	300	941	896	1.0	120	120
Merthyr			151	151	396	396	1.0		
RCT			149	149	545	500	1.1	120	120
POWYS							n/a	1383	1383
WALES	14261	4790	12401	10926	16610	6623	1.9	8237	7601

- A total of 43,272 packs were distributed to 22,339 children in settings taking part in the fissure sealant and/or the fluoride varnish elements of the programme – these children received an average of 1.9 packs during the reporting period (Table 14).
- The Hywel Dda D2S local coordinators deliver twice yearly home packs for children who are brushing or having fluoride varnish in PS-Yr2 and also to older children who are brushing in years 3-6 but the packs are recorded on the tooth brushing returns (see Table 13).
- In addition 8,237 home packs were distributed to children not taking part in the core elements of Designed to Smile, i.e. those involved in the wider oral health promotion aspects (Table 14).

	Number of packs	Cost of packs
Tooth brushing	230,744.00	£162,259.18
Fluoride varnish/ Fissure Sealant	43,272.00	£30,428.87
Other	8,237.00	£5,792.26
TOTAL		£198,480.31

**a box of 25 home packs costs £17.58*

- The total costs of the home packs have been calculated as £198,480 based on the fact that a box of 25 home packs costs £17.58 including VAT.

Wider engagement

- A key element of the Designed to Smile Programme involves CDS personnel providing broader oral health advice, education and promotion to parents, school and primary care personnel linked to the programme.

Parents

- The CDS teams invite all parents or guardians of children taking part in the scheme to a talk at their child's school/nursery, prior to the tooth brushing scheme commencing. CDS personnel answer questions about the programme, and also provide general advice on good oral health and nutrition.

Table 15: Parents attending Oral Health Promotion (OHP) talks

Area	No. of parents taking part in group oral health education sessions	No. of parents taking part in one to one sessions
Aneurin Bevan	657	117
Blaenau Gwent	0	0
Caerphilly	29	2
Monmouth	26	20
Newport	180	16
Torfaen	422	79
ABMU	1916	1986
Bridgend	287	99
Neath Port Talbot	416	144
Swansea	1213	1743
Betsi Cadwaladr	2042	2042
Anglesey	194	194
Conwy	444	444
Denbighshire	248	248
Flintshire	435	435
Gwynedd	0	0
Wrexham	721	721
Cardiff & Vale	722	74
Cardiff	459	55
Vale Glamorgan	263	19
Cwm Taf	408	23
Merthyr	131	3
RCT	277	20
Hwyel Dda	70	40
Carmarthenshire	30	0
Ceredigion	16	16
Pembrokeshire	24	24
Powys	16	6
WALES	5831	4288

NB For Betsi Cadwaladr the figures relate to a combination of group and one-on sessions – it was not possible to separate out at this stage.

- There has been a reduction in oral health education activity associated parents of children taking part in Designed to Smile between 2013/14 and the previous reporting period. In

2012/13 10,143 and 7,899 parents took part in oral health education group and one to one sessions compared with 5,831 and 4,288 in 2013/14 (Table 15).

- This reduction is likely to be associated with the fact that the programme is well established and contacts now only need to be made with parents of recent recruits. But also the guidance from the “How to Guide”, emphasising the importance of delivering only evidence based health promotion.

The CDS D2S teams have been engaged in a wide range of activities to engage parents and carers in Designed to Smile – some examples are presented below:

- The ABMU D2S team have been accompanying outreach and development workers to ‘one to one’ sessions in deprived areas with families who find it difficult to engage with services or even their children’s school.
- In Aneurin Bevan UHB parents seem reluctant to attend OHE sessions. Instead parental involvement is encouraged via PTFA meetings and D2S attendance at other school activities such as parents’ evenings, induction days, school fetes and sports days. Access to parents is also gained through breast feeding and weaning groups, and toddler and other playgroups.
- Over the course of 2013-4 the Betsi Cadwaladr D2S team have had contact with over 1500 parents who have attended outside events including the Eisteddfod and other Health Fairs.
- In Powys some schools continue to shine with their positive approach to the tooth brushing programme and have been very keen for us to attend school parents evenings and open days to promote the key principles of the programme to pupil’s parents.

The annual stand at the Royal Welsh Show saw Designed to Smile, Powys Healthy Schools and community dieticians all working together offering advice and information to the general public. This helps integrate Designed to Smile into the wider Health Board prevention programmes. Oral health competitions and displays run from the stand were designed to engage children and parents in the importance of oral care and wider health promotion messages beyond the D2S programme.

- In Hywel Dda the CDS has had some contact with parents at mother and toddler and weaning/breast feeding groups, school open evenings etc. But as in other health boards it has proven quite difficult to reach parents of participating children so CDS colleagues are focusing efforts towards professionals who are in contact with the families and develop ways of embedding oral health into their systems if possible.

Setting personnel

- In each school/nursery involved in the Designed to Smile scheme, CDS teams talk to multiple members of staff to help them deliver the programme effectively and safely, but also to emphasise the importance of promoting good oral health and nutrition to the school/nursery children.
- Between April 2013 and March 2014 the CDS provided some training to 84% (1,169) of the 1,389 settings taking part in the supervised tooth brushing element of D2S (Table 16).

- Overall, 8,807 and 8,410 members of school/nursery staff received training in the implementation of supervised tooth brushing and wider oral health education respectively.

Table 16: Setting (school or nursery) personnel receiving Designed to Smile training

Area	Number of settings with associated activity	No. of school personnel taking part in implementation of toothbrushing	No. of school personnel taking part in wider oral health education	Average number of staff trained per setting in the implementation of supervised TB
Aneurin Bevan	185	1333	1333	7.2
Blaenau Gwent	38	323	323	8.5
Caerphilly	57	436	436	7.6
Monmouth	13	91	91	7.0
Newport	38	251	251	6.6
Torfaen	39	232	232	5.9
ABMU	241	3127	3025	13.0
Bridgend	71	740	740	10.4
Neath Port Talbot	73	886	882	12.1
Swansea	97	1501	1403	15.5
Betsi Cadwaladr	402	2763	2760	6.9
Anglesey	52	316	316	6.1
Conwy	68	426	426	6.3
Denbighshire	51	329	329	6.5
Flintshire	62	548	548	8.8
Gwynedd	73	413	413	5.7
Wrexham	96	731	728	7.6
Cardiff & Vale	92	254	162	2.8
Cardiff	56	128	88	2.3
Vale Glamorgan	36	126	74	3.5
Cwm Taf	83	210	2	2.5
Merthyr	20	93	0	4.7
RCT	63	117	2	1.9
Hywel Dda	132	873	929	6.6
Camarthenshire	45	454	394	10.1
Ceredigion	53	328	404	6.2
Pembrokeshire	34	91	131	2.7
POWYS	34	247	199	7.3
WALES	1169	8807	8410	7.5

- Across Wales 7.5 members of staff were trained per setting, where training was delivered, to deliver the supervised tooth brushing element of Designed to Smile during 2013/14.
- The numbers of staff trained per by unitary authority and health board are presented in Table 16. It is worth noting the range in LHB activity where Cardiff and Vale appear to direct less resources than ABMU for example. This might be related to the fact that the former health board has been involved in Designed to Smile since the pilot stages and has already trained their school personnel.
- The range in the numbers may well also be explained by a different approach to counting staff who receive training. Cardiff and Vale for example, work to an evidence based approach, where initial training is given but new staff members only are trained each year. Monitoring of compliance with quality standards is then routinely carried out.
- The numbers of staff trained per setting by unitary authority ranged from 1.9 in Rhondda Cynon Taf to 15.5 in Swansea. The difference in numbers of personnel trained is likely to reflect the difference in the number of classes and class size across unitary authority areas.

Primary care personnel

- A key element of the D2S programme is that CDS personnel work closely with key stakeholders to promote consistent and up to date oral and wider health messages.
- During 2013-14 CDS D2S teams had contacts with 25 midwives, 757 health visitors, 218 school nurses and 38 dietitians. Specific details of the activities involved together with local health board breakdowns are presented in Table 17.

Table 17 Primary care personnel and community initiatives receiving training from the D2S team

Area - activity	Midwife	Health visitor	School nurse	Dietitians	Primary care students	Parents	Other	TOTAL
Aneurin Bevan		273	152				571	996
Oral Health Training		273	152					425
Oral Health Training - Communities First/Support Workers							227	227
Oral Health Training - Early Years							55	55
Oral Health Training - Flying Start							89	89
Oral Health Training - Healthy Schools							200	200
ABMU	15	131	10	8	27		41	232
Ethnic group open day, range of health professionals present							12	12
Margam Park event							25	25
Nutrition course				8				8
OHE in schools/nurseries			10		27			37
Parent groups	15	131						146
Valleys to Coast - OHP open day							4	4
Betsi Cadwaladr		201	53	10	226	2520	20	2776
Baby Clinics 1:1 with parents. Home pks/training cup						975		975
DTS training			53		226			279
DTS training (flip chart resource)		201						201
DTS training Child minders							20	20
HSPSS				10				10
Parenting groups Home pks/training cup						1545		1545
Cardiff & Vale		37		13	26	368	193	637
First Time Mums Group		11					47	58
Agored Cymru Nutrition Course							40	40
Baby Clinic		11				28		39
Breastfeeding Group		2				17		19
Children's/family centre						44	12	56
DCP Students					20			20
GP Clinic		1				26		27
Healthy Schools Event							55	55
Homeless Family Centre						38	7	45
Paediatric Dietitians				7				7
Parenting Group		1				9		10
SONMS					6			6
Stay and Play Groups						17	26	43
Weaning Parties		11		6		189	6	212
Cwm Taf		60			206	277	23	566
Baby Clinic		11				66		77
Baby Programme		1				20	3	24
Childcare Courses					145			145
Coffee Morning		1				45		46
DCP Students					4			4
Early Years Staff Training					56			56
Health Visitor Training		40			1			41
Mother and Toddler group						26	6	32
Parenting Group		7				120	14	141
Hywel Dda	10	52	2	6	49		190	309
Breast feeding group	4							4
Child care students college							90	90
Children services summer clubs - oral health education							4	4
Designed to Smile Update Meeting		20	1					21
Family centres social services							4	4
Learn & Play Education, talk in steering group mtg on D2S							12	12
Managers of nursery settings - public health event							42	42
Mudiad meithrin AGM - key messages and D2S							22	22
Oral health talks	6	32	1	6	42			87
Student nurses & Princes Trust Students					7			7
Public health team							7	7
Students, including 6th formers, nutritionists, env health							4	4
Social services - children services							2	2
Speech and language							1	1
twf - massage group - mums on oral health							2	2
POWYS		3	1	1				5
Dental Health Messages		2						2
OCN Nutrition - Dental element			1	1				2
Shadowing - Public Health Day		1						1
WALES	25	757	218	38	534	3165	1038	5775

- D2S teams also delivered a range of activities working with 1,038 “other” professionals in the community, including Flying Start, Early Years, Healthy Schools, nutritionist and child social services colleagues (Table 17).
- CDS D2S teams also delivered some additional OHE to 3,165 parents in the wider community, not linked to core D2S activity, primarily at Baby Clinics and child care groups (Table 17).

Integration with wider public health personnel and initiatives

ABMU: additional groups and contacts made this year include: Ethnic Youth Support Team (EYST), OHE sessions for LAC nurses and foster carer groups, Communities First Cluster Teams, OHE for students with learning disabilities in Bridgend College, Community Drug and Alcohol Team.

Aneurin Bevan: An Oral Health Promotion Steering Group has become well established within ABUHB and has been proactive in both giving guidance to the D2S programme and facilitating partnership working. It is a forum for contact between Healthy Schools, Flying Start, Sure Start, and Public Health, amongst others, and all aspects of the D2S programme.

All staff associated with D2S are trained in Oral Health and Nutrition (joint training with ABUHB Public Health Dietitians). The D2S team also aims to ensure that all health visitors and childcare assistants linked with Flying Start are up to date with current evidence based oral health messages.

Members of D2S continue to participate in events hosted by outside agencies in order to promote the programme and good oral health in general. Examples include local authority fun-days, multidisciplinary meetings and educational days.

In addition to the activity described in Table 17 above Aneurin Bevan CDS provide additional health promotion activity to:

No. professionals	No. support workers	No. parents	No. children	No. TB Packs
996	205	782	887	1442

These are accessed at schools, colleges, fun days, Flying Start support functions and outside agencies. Activities accessing these additional contacts support partnership and inter-agency working. Partnership working in Flying Start settings has seen an additional 5400 toothbrush/toothpaste home packs given out pan Gwent.

Aneurin Bevan D2S personnel continue to work with the Travelling Community at Shepherds Hill and Upper Race in Torfaen. 21 children received Fluoride Varnish applications and a dental home pack as part of this programme.

Betsi Cadwaladr: The Designed to Smile strategic planning group has been established, with membership from education and various Community health disciplines. Work continues within Flying Start and Community First areas involving a full spread of primary care

personnel. Local Further Education Colleges and Glyndwr University continue to receive support from the D2S team who have input on a range of child care, teacher training and student Health Visitor courses.

In June of 2013 D2S staff attended and gave a presentation at the AGM of the Gwynedd Ysgolion Meithrin team. This was attended by 80 delegates and was well received. New contacts were made and their requests have been followed up.

Links continue with HSPSS and Healthy Schools co-ordinators. These links are vital in encouraging reluctant schools to join the scheme, and maintaining the participation and interest in others. The phase 6 NQA award has elevated the importance of the D2S programme, showing it to be an essential aspect of the healthy school package

Cardiff and Vale: continue to work closely with Healthy School and pre-schools. The CDS has recently started working with the Family Engagement Worker at HMP Cardiff.

Hywel Dda: The D2S Steering Group model is working well. The team has strengthened links with other professionals – HSS, HSPSS, primary care staff, Flying Start and Community First Teams etc. D2S information has been disseminated to GDPs.

Powys: Existing team members have either completed or are currently undertaking the ‘Community Food and Nutrition course’ Level 2 delivered by local community dietitians. All new members to the team will be recommended to attend this course also.

Furthermore the team maintains links with healthy schools and pre-schools through the D2S steering group meetings.

Quality Assessment

- Before any school or nursery can begin the tooth brushing programme, CDS teams carry out a full risk assessment of the classroom environment to ensure that the required standards can be met.
- CDS teams provide training and guidelines to school/nursery staff on cleaning protocols and the importance of working to avoid cross-infection. To ensure that these standards are maintained over time, CDS staff must visit each setting once every half term (around once per six weeks) and fill out a Quality Assurance (QA) assessment form while observing the tooth brushing scheme in action³. Notes are recorded of any interventions required or, in the case of repeated interventions, cases where the programme has been suspended in a school/nursery.

Table 18: Quality assessments carried out by UAs within reporting LHBs

Health Board	Number of settings	Number of classes	Number of QA assessments undertaken	Number of times where remedial measures were necessary	How many times was it suspended
ABMU	234	804	331	5	0
Aneurin Bevan	170	412	1621	0	0
Betsi Cadwaladr	397	1012	3848	135	0
Cardiff & Vale	164	380	1393	27	0
Cwm Taf	184	429	1684	31	3
Hywel Dda	168	363	1121	21	7
Powys	33	124	416	29	0
WALES	1350	3524	10414	248	10

- Table 18 shows the number of QAs carried out in each LHB during the reporting period. 10,414 QAs were carried out across Wales between April 2013 and March 2014. This represents a reduction of 2,066 QAs (there were 12,480 QAs in 2012/2013) when compared with the previous reporting period and is a reflection of the growth of Designed to Smile across the Principality. This reduction in settings needing intervention may be a reflection that the tooth brushing programme is now well established and setting personnel have become accustomed with procedures.
- In Aneurin Bevan whilst the programme was not without issue all concerns were minor such as splayed bristles of toothbrushes or small reminders regarding cross infection and were dealt with at the time. Therefore these were not recorded as needing remedial action.

³ In settings where CDS teams feel that staff require extra support, or where previous interventions have been necessary, they may decide to carry out QA assessments more regularly than once per half-term.

Fissure Sealant Activity

Table 19 Wales Fissure Sealant Programme Activity April 2013 – March 2014, compared with previous years

	Total April 2013-March 2014	Total April 2012-March 2013	Total April 2011-March 2012	Total April 2010-March 2011	Total April 2009-March 2010	Totals January to December		
						2008	2007	2006
Total number of settings visited	180	196	191	456	229	229	248	281
Total number of children assessed	8,485	8,395	9,044	16,570	7,748	8,250	8,026	7,564
Total number of children receiving oral hygiene advice/instruction	12,403	11,972	12,763	16,058	9,023	7,746	16,665	9,340
Total number of children receiving fluoride toothpaste and brushes	12,403	11,496	12,725	16,331	9,495	7,746	19,700	18,220
Total number of teeth sealed	15,615	11,728	11,428	14,075	12,015	10,397	10,291	9,797

- Across Wales between April 2013 and March 2014 180 schools took part, which is similar to the number of settings visited during the previous two reporting periods, but a significant reduction when compared with activity for 2010/11 (Table 19).
- Cardiff & Vale and Cwm Taf are unable to contribute any data as the sealant / varnish trial continues
- Since the commencement of Designed to Smile local health boards have been refocusing their oral health promotion activity and this has had implications for FSP activity.
- 8,495 children were assessed during April 2013-March 2014; 90 fewer children when compared with the previous year.
- The total number of teeth sealed during April 2013-March 2014 was 15,615 - 2,066 more than in April 2012- March 2013.
- Across Wales 12,403 children received oral hygiene advice and fluoride toothpaste and tooth brushing packs in 2013-2014.
- Area breakdowns for activity associated with the Fissure Sealant element of Designed to Smile are presented in Table 20.
- In Aneurin Bevan, all children in school years 2 and 3 who are eligible for the fissure sealant programme in targeted schools, receive an OHE lesson and 3 home packs a year. These packs help reinforce the OHE teachings and hope to maintain continuity with tooth brushing, which may be no longer being carried out within schools due to the age of the child. Return of consent forms remains variable between schools. Those children most in need of care appear to be those least likely to return forms. We are working with the schools involved to try and improve the consent rate.

Table 20 Fissure Sealant Programme Activity by Health Board April 2013 – March 2014

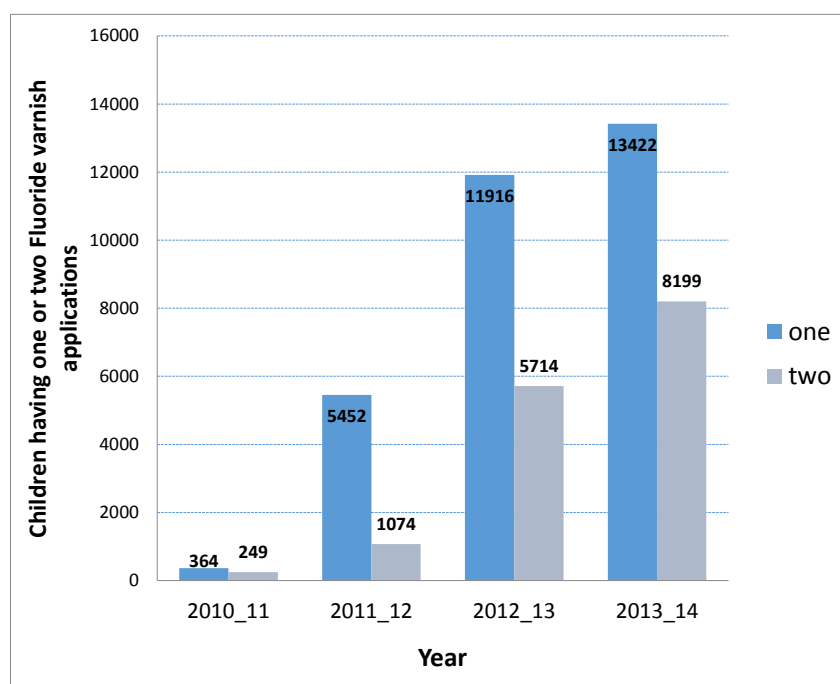
Area	Number of settings	Number of classes	Number on roll by establishment	Number consenting to FS assessment by establishment	Number being assessed	Number of teeth sealed	Children receiving fluoride tooth paste & brushes
Aneurin Bevan	87	171	5437	3450	3243	6222	5437
Blaenau Gwent	23	45	1313	875	822	1613	1313
Caerphilly	31	60	1519	972	916	1630	1519
Monmouth	4	8	240	175	163	155	240
Newport	17	34	1418	855	801	1632	1418
Torfaen	12	24	947	573	541	1192	947
ABMU	7	26	751	323	310	1140	751
Swansea	7	26	751	323	310	1140	751
Betsi Cadwaladr	75	202	6215	4692	4507	7942	6215
Anglesey	4	12	256	182	172	370	256
Conwy	15	30	919	602	570	1090	919
Denbighshire	19	54	1911	1576	1538	2731	1911
Flintshire	22	64	1768	1455	1411	2479	1768
Gwynedd	10	27	893	545	511	753	893
Wrexham	5	15	468	332	305	519	468
Hywel Dda	11	31	796	428	425	311	
Carmarthenshire	7	20	487	265	264	223	
Ceredigion	2	6	166	88	88	31	
Pembrokeshire	2	5	143	75	73	57	
WALES	180	430	13199	8893	8485	15615	12403

- In Hywel Dda the Fissure Sealant programme is restricted to only the most needy schools because of the logistics and expense of delivering that across such a wide area with only one mobile dental unit. There have been obstacles such as staff sickness and vehicle damage which have disrupted the programme.
- Some children taking part in the Fissure Sealant programme in Hywel Dda received home packs that were recorded on the tooth brushing return. The focus this year has been establishing the Fluoride Varnish element of the programme in the in 3-5 year olds and maintaining tooth brushing settings and taking on new flying start settings which were a higher priority.

Fluoride varnish

- The Designed to Smile oral health promotion initiative aims to get fluoride into contact with children's teeth. Supervised tooth brushing has been the focus of Designed to Smile in the early years and application of fissure sealants was ongoing, as it was inherited from Designed to Smile's predecessor, the Fissure Sealant Programme. As Designed to Smile progresses some areas have introduced the Fluoride Varnish element of the programme.

Figure 5 Children receiving Fluoride Varnish Applications across Wales since 2010/11



- The Fluoride Varnish element of the D2S programme has continued to grow; Figure 5 highlights its uptake in Wales since 2010/11.
- In 2013/14, a total 13,422 children received one application with an additional 8,199 having two applications of fluoride varnish across Wales. LHB and UA breakdowns are presented in Table 21.
- Aneurin Bevan continued to target children aged 3 to 5; thus Gwent now has a cohort of children receiving multiple fluoride varnish applications. This has been successful within school based nurseries, but proved more difficult within the small private nursery sector with Flying Start places. These nurseries have younger children, varied intake times, often shorter sessions and some children attend a number of different nurseries. Therefore targeting these nurseries has been reduced, concentrating on mainly in school-based nurseries. There were issues obtaining Duraphat varnish during the 2013 summer term due to manufacturing problems resulting in some programme delays.
- Betsi Cadwaladr CDS are arranging two Fluoride Varnish “additional duties” courses later this year, to enable more dental nurses to apply fluoride varnish within the school, community or practice settings. This course will be open to dental nurses from all branches of dentistry across North Wales and Powys.

Table 21 Fluoride Varnish applications

Area	Number of settings	Number of classes	Number of children eligible during reporting period	Number of children with consent	Number excluded due to medical reasons	Number of children receiving 1 six monthly application	Number of children receiving two six monthly applications
Aneurin Bevan	85	264	8857	6867	385	3055	3092
Blaenau Gwent	17	53	1573	1189	29	630	469
Caerphilly	23	74	1932	1622	128	743	715
Monmouth	6	16	561	438	16	231	181
Newport	16	56	2306	1676	89	556	893
Torfaen	23	64	2461	1923	118	883	834
(blank)		1	24	19	5	12	0
ABMU	18	68	2262	1488	138	1172	3
Neath Port Talbot	4	18	668	454	41	346	0
Swansea	14	50	1594	1034	97	826	3
Betsi Cadwaladr	14	71	1948	1471	241	1235	999
Anglesey	2	14	320	215	20	191	117
Denbighshire	2	10	187	143	43	97	74
Flintshire	9	40	1244	988	149	850	729
Wrexham	1	7	197	125	29	97	79
Cardiff & Vale	94	94	10022	6764	255	3447	1623
Cardiff	69	69	7640	5110	185	2606	1188
Vale Glamorgan	25	25	2382	1654	70	841	435
Cwm Taf	76	76	8060	6109	319	3462	1230
Merthyr	24	24	2697	2068	103	1322	253
RCT	52	52	5363	4041	216	2140	977
Hywel Dda	21	88	2169	1408	88	269	1052
Cardiff	12	50	1093	746	50	253	441
Ceredigion	4	20	419	286	13	11	265
Pembrokeshire	5	18	657	376	25	5	346
POWYS	18	60	1512	1062	23	782	200
WALES	326	721	34830	25169	1449	13422	8199

- Betsi Cadwaladr also experienced challenges related to the continuity of supply of Duraphat fluoride varnish. This shortage did interfere with plans to roll more children onto the fluoride varnish application scheme, so, as a contingency we have concentrated on the establishment of tooth brushing into North Wales pre-school settings this year.
- Cardiff and Vale CDS have focussed the Fluoride Varnish element of the programme on nursery and reception pupils, with the hope that this will have some influence on the 5 year old epidemiological survey. As our time in schools is restricted, it was viewed more important to apply varnish to the Nursery pupil's teeth than Year 1 pupils.
- Hywel Dda commenced the fluoride varnish programme for 3-5 year olds during the latter half of the reporting period. Much of the team's efforts for this year have been directed at achieving this. All these children receive their biannual packs but are recorded with the tooth brushing packs.
- Like other CDS's Hywel Dda experienced problems of being unable to access Duraphat for a considerable time. The fact that the PGD was not in place during 2013/14 created a extra work in terms of signing up the scripts, ferrying confidential consents across the health board, signing up second consents etc.

Staff and resources

- Currently there are a total of 142 new and existing CDS personnel contributing to Designed to Smile across Wales. A considerable number of these work part-time to reflect school/nursery term times and consequently the number of whole time equivalents (wtes) are fewer; presently there are 81.1 wtes working in Designed to Smile (Table 22).

Table 22 Staff involved in Designed to Smile

Area	Total number of personnel working for D2S	Number of whole time equivalents	Personnel recruited during the period
Aneurin Bevan	30	20.8	1
Blaenau Gwent	3	2.9	1
Caerphilly	4	2.3	0
Newport	2	1.4	0
Pan Gwent	19	12.4	0
Torfaen	2	1.7	0
ABMU	13	10.0	0
Pan Health Board	13	10.0	0
Betsi Cadwaladr	42	17.5	1
Anglesey	5	0.9	0
Conwy	5	2.3	0
Denbighshire	4	2.3	0
Flintshire	10	4.5	0
Gwynedd	9	3.1	1
Wrexham	9	4.4	0
Cardiff & Vale	17	9.5	0
Cardiff	11	6.2	0
Vale Glamorgan	6	3.3	0
Cwm Taf	16	8.1	2
Merthyr	7	3.0	1
RCT	9	5.1	1
Hywel Dda	16	11.2	0
Carmarthenshire	10	7.7	0
Ceredigion	2	1.4	0
Pembrokeshire	4	2.0	0
Powys	8	4.2	0
WALES	142	81.1	4

NB. Health boards with more than one constituent unitary authority (UA), staff tend to work across multiple UA areas, therefore UA breakdown constitute an approximation

- During this reporting period an additional 4 individuals were recruited to work on Designed to Smile (Table 22). Since the scheme was introduced a total of 129 new staff have been recruited to work in the Wales' CDS (24 recruited in 2008-09; 19 recruited in 2009-10, 34 recruited in 2010/11, 26 in 2011/12, 22 in 2012/13 for details consult previous annual monitoring reports).

Table 23 Resources spent on Designed to Smile between April 2013 – March 2014

	Staff spend £	Staff spend as a % of total spend	Non-staff spend £	Total £
Abertawe Bro Morgannwg	284,000	48	311,999	595,999
Aneurin Bevan	517,394	71	215,572	732,966
Betsi Cadwaladr	507,426	58	365,483	872,909
Cardiff and Vale	686,187	77	207,565	893,752
Hywel Dda	319,056	75	108,893	427,949
Powys	119,463	81	27,732	147,195
WALES	2,433,526	66	1,237,244	3,670,770

- A total of £3,670,770 was spent on the Designed to Smile programme during 2013/14; representing 99% of the £3,717,000, allocated (Tables 23 & 24).
- A LHB breakdown of staff and non-staff spend are presented in Table 23. During this period £2,433,526 was spent on staff costs across Wales, equating to 66% of the total spend. This characteristic ranged from 48% in ABMU to 81% in Powys.

Table 24 2013/14 Allocations versus monies spent by reporting LHB

	Allocation £	Spend £	Difference £
Abertawe Bro Morgannwg	619,000	595,999	23,001
Aneurin Bevan	732,000	732,966	-966
Betsi Cadwaladr	822,000	872,909	-50,909
Cardiff and Vale	970,000	893,752	76,248
Hywel Dda	427,000	427,949	-949
Powys	147,000	147,195	-195
WALES	3,717,000	3,670,770	46,230

- A further £1,237,244 was spent on non-staff costs (Table 23); some of this was spent on programme resources and materials such as information leaflets and administrative documentation, toothbrushes, pastes, home packs, while other money was spent on travel and training costs. In some areas the monies associated with accommodation for the D2S team are also included in the non-staff spend. Recruitment costs for those new staff referred to above also featured in the costs of the programme.

Additional issues

Abertawe Bro Morgannwg

Successes:

- Advertising the programme in free community publications (sometimes these incur a small fee) has led to many requests and queries from members of the public; oral health advice and the D2S web address is included in these publications.

Barriers:

- Schools withdrawing from D2S continues to be a cause for concern. ABMU CDS colleagues consider that this usually occurs with the appointment of a new head teacher and also if the school has received a poor school inspection. However, some schools have increased the number of classes taking part and one school in a high need area which had not been engaging with D2S is now brushing, receiving OHE and fluoride varnish.
- The under spend this year has been largely due to slippage on staffing because of long term sickness and maternity, this is being addressed with a new staff structure for this year. Also problems accessing Duraphat meant the fluoride varnish element of the programme was delayed.
- Long term sickness and maternity leave within the team has also proved challenging this year, the team structure is being looked at to ease this pressure short term and for the future.

Aneurin Bevan

Successes:

- All D2S staff take part in regular training for continued professional development. They also participate in a peer review and audit programme within the CDS.
- A new ABUHB referral care pathway for dental care for children requiring sedation or general anaesthesia will be launched in May 2014 that has links with D2S OHIP.
- All programmes are subject to continual monitoring. Clinical protocols are in place and all teaching sessions are evaluated. Team meetings are held regularly. Stock control and financial monitoring are undertaken monthly in close liaison with ABUHB finance and CDS directors.

Barriers:

- Issues regarding non-participation of a growing number of schools, either wholly or partially, are a cause for concern this year. The main reason for this relates to "time", with schools feeling under increasing pressure from the national curriculum and other aspects of school life. Other reasons include 'reducing parental responsibility', language barriers with pupils and families, and concerns about cross infection.
- Some settings are content to allow the aspects of D2S which do not have direct impact on school staff resources, such as fissure sealant and fluoride varnish activity, but refuse to become involved in the tooth brushing aspect. The merging of a number of participating

primary schools into 2 new schools has provided unengaged school staff with the opportunity to withdraw from the programme. There have been many attempts to work closely with Education within Gwent to encourage these poorly or non-participating schools to embrace the programme but they have had little effect.

- Staff maternity leave and long-term sickness have had a detrimental effect on service delivery, including a period of time without 1 mobile dental unit.

Betsi Cadwaladr

Successes

- The CDS service delivers an accredited Oral Health Education Certificate Course that enables students to sit the National Examining Board for Dental Nurses Oral Health Education Certificate examination. The current cohort of students sit their exam in March 2015. This course is effectively training the future generation of Dental Health educators, and indeed a student from a past course has recently taken up a D2S appointment within the CDS team.

Barriers

- The length of the recruitment process to replace four staff who left the BCU D2S team meant that the programme was understaffed for a period of time. In addition, two members of staff have been on maternity leave.

Cardiff and Vale

Successes

- SONMS – Spoke Outreach Placements: This has been well received; we have a number of students, mainly paediatric nurses that spend a week on placement with the team. The feedback from staff and students has been very positive.
- Flying Start Cwm Taf: As a result of the steering group, Cwm Taf Flying Start have provided tooth brushing packs and free flow cups from under spend this financial year. They are currently in discussions to include toothbrushes and toothpaste from the total budget going forward.
- Engaging with parents in settings such as weaning groups, stay and play, breastfeeding etc. has always been productive. It gives an early insight into the programme.

Barriers

- Staff in some schools present barriers; some believe tooth brushing is a parental responsibility. Anecdotal evidence from D2S personnel suggests they are being challenged more frequently as to why tooth brushing should take place in the class room.

Additional activity in Cwm Taf

- Cwm Taf Health Board continues to fund an initiative in Rhondda Cynon Taf to deliver supervised tooth brushing to those nurseries and primary schools not taking part in D2S. The scheme is delivered to nursery, reception and school year 1.

Number of Non D2S schools	50
Number of schools participating	36
Number of children in participating schools	3,007
Number of children brushing	2,854
Number of home packs distributed (x2 where possible)	4,424
Number of parents/guardians attending talks	134

Hywel Dda

Successes:

- The current CDS service review has provided more opportunities for integration of D2S and the CDS. Hywel Dda CDS has put in a bid to improve IT support which will help alleviate current IT issues in D2S. Operational Issues such as storage, transport of stock and consents, are being resolved despite the large geographical area. The all Wales Procurement process underway. Links have been strengthened with other professionals including HSS, HSPSS, primary care staff, Flying Start and Community First Teams. D2S information has been disseminated to GDPs. The D2S Steering Group model is working well.

Barriers:

- There have been problems associated with long term sickness and maternity leave which has impacted on the service. The MDU has had intermittent problems with equipment failure. It sustained considerable water damage in the past which needs regular monitoring.

Powys

Successes:

- Powys CDS has witnessed increasing support from teachers and pupils towards tooth brushing, especially with the awarding and delivery of the Gold, Silver and Bronze Awards. Some schools continue to shine with their positive approach to the tooth brushing programme and have been very keen for us to attend school parents evenings and open days to promote the key principles of the programme to pupil's parents.
- After the reconfiguration of schools in Ystradgynlais, one large setting dropped out of the programme last year. But the CDS has successfully managed to reinstate the setting into the programme.
- The PDS/GDS contract in Machynlleth is working well, with this dentist undertaking the fluoride varnish in two schools for the Designed to Smile programme.

- Regular attendance at the steering group includes representatives from Health Schools, School nursing, Health visitors and PHW. All members of the Powys Community Dental Service actively help out if available, which helps deliver the programme especially during times of staff illness.

Barriers

- Continued long term staff sickness and a highly respected team member leaving, has put further strain on the effective delivery of the programme in certain areas.
- Staff shortages resulted in a number of schools only receiving a once yearly application of fluoride varnish, instead of the ideal twice yearly application. However, with continued help from CDS dental nurses keen to get more involved with the delivery of the D2S programme, the recent employment of a new dental health support worker and an opening for another DHSW position going to advert, the team expect to be fully staffed by the end of Spring.
- The representative from Education, who was attending our Designed to Smile steering group, has told us they can no longer attend. This is disappointing as this contact had been helping to recruit settings who were at first reluctant.

Conclusions

Significant progress has been made in the development of the Designed to Smile during 2013/14. The supervised tooth brushing programme is now well established across the whole of Wales. In the super pilot areas in North and South East Wales the scheme has continued to develop. Whilst the areas newer to Designed to Smile (i.e. Aneurin Bevan, Powys, Hywel Dda, and Abertawe Bro Morgannwg health board areas) have reaped the rewards of the groundwork undertaken in the previous reporting period.

There have been substantial increases in the numbers of settings taking part in the supervised tooth brushing element of the programme, especially in the areas newer to Designed to Smile ensuring that children from deprived areas are getting fluoride in contact with teeth. This has culminated in 1,389 schools and nurseries taking part across the Principality with 92,948 children brushing with fluoridated toothpaste.

During 2013/14 there has been considerable growth in the Fluoride Varnish element of the programme. A total of 326 settings were taking part. Across Wales there were 13,422 children receiving one application with an additional 8,199 having two applications of fluoride varnish.

In terms of resources a total of £3,670,770 was spent on the Designed to Smile programme during 2013/14; representing 99% of the monies £3,717,000, allocated by the Welsh Government. During this reporting period an additional 4 individuals were recruited to work on Designed to Smile. Since the scheme was introduced a total of 129 new staff have been recruited to work in the Wales' CDS.

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