



# **Designed to Smile**

**Activity Data: September 2016 – July 2017**

**Monitoring Report**

**June 2018**

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The refocus of D2S has had a large impact on the D2S/MDC teams in Cardiff & Vale and Cwm Taf. The removal of the embedded Fissure Sealant Programme has meant a shift in staff roles and work load. We are extending the Fluoride Varnish Programme to include year 1 children in Cardiff and Vale to bring them in line with Cwm Taf children. ....	31
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## Executive Summary

This report details the Designed to Smile activity which took place between September 2016 and July 2017.

**Settings:** By the end of July 2017 the total number of schools and nurseries involved in Designed to Smile was 1,537. This includes 1,460 settings agreeing to take part in the tooth brushing element of the programme; 320 of these settings also took part in either the fissure sealant or the fluoride varnish elements of D2S; and another 169 settings took part in supervised tooth-brushing and the fluoride varnish and fissure sealant elements of D2S. A further 77 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 98,568 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 94%.

**Population coverage:** 66% 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 6% of children in School Years 3-6 are taking part (assuming a population denominator of children aged 7-10).

**Home packs:** 234,445 home packs were distributed across Wales. On average 2.1 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 2,317 and 1,130 parents attended either group oral health education or one to one sessions respectively.

Overall, 8,193 and 7,908 members of school/nursery staff received training in the implementation of supervised tooth brushing and wider oral health education respectively between September 2016 and July 2017. 39,360 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 9,902 quality assessments (QAs) were carried out across Wales between September 2016 and July 2017. These involved 135 instances of remedial measures being undertaken with 6 settings having to be temporarily suspended.

**Fissure Sealant Programme activity:** 10,717 children were assessed during September 2016 and July 2017; the total number of teeth sealed was 16,072.

**Fluoride varnish activity:** In the 2016/17 school year a total 23,400 children received two applications with an additional 23,851 having one application of fluoride varnish across Wales.

**Staff and costs:** During this reporting period an additional 13 individuals were recruited to work on Designed to Smile. Since the scheme was introduced a total of 181 new staff have been recruited to work in the Wales' CDS. A total of £3,725,492 was spent on the Designed to Smile programme during 2016/17; representing just over 100% 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 programme, 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 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.

**Table 1 Number of settings taking part in D2S (TB or FV) in September 2016 – July 2017 compared with previous years, by reporting LHB**

AREA	2009-10*	2010-11*	2011-12**	2012-13**	2013-14**	2014-15**	2015-16**	2016-17**\$					
Abertawe Bro Morgannwg	54	127	139	212		245		270		273		287	
Aneurin Bevan	21	100	157	208		211		211		224		225	
Betsi Cadwaladr	166	270	326	394		413		419		419		406	
Cardiff and Vale	232	341	413	384	186 C&V 198 CT	375	188 C&V 187 CT	383	189 C&V 194 CT	394	200 C&V 194 CT	383	202 C&V 181 CT
Hywel Dda	42	84	147	162		174		186		193		196	
Powys	0	22	29	34		34		40		39		40	
WALES	515	944	1211	1394		1452		1509		1542		1537	

*\*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*

*\*\*\$ prior to 2016-17 data was collected by financial year, from 2016-17 monitoring data is now collected by school year*

- The total number of schools and nurseries agreeing to take part in Designed to Smile was 1,537 by the end of July 2017. This includes 1,460 settings agreeing to take part in the tooth brushing element of the programme; 320 of these settings also took part in either the fissure sealant or the fluoride varnish elements of D2S; and another 169 settings took part in supervised tooth-brushing and the fluoride varnish and fissure sealant elements of D2S.

- A further 77 settings were taking part in the fluoride varnish and/or the fissure sealant elements of D2S but were not tooth brushing.
- Setting type is presented in Table 2. 32 special educational needs schools as defined by Welsh Government and an additional 21 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**

Health Board	Infants	Juniors	Nursery	Pre School (0-2)	Primary	Special needs non WG	Special Needs WG	All taking part in any D2S
Abertawe Bro Morgannwg	5	2		143	128		9	287
Aneurin Bevan			1	85	132		7	225
Betsi Cadwaladr	8	5		227	156	10		406
Cardiff & Vale			2	88	106		6	202
Cwm Taf	5	3	3	99	65	3	3	181
Hywel Dda	15	2	22	71	73	6	7	196
Powys	6		1	10	21	2		40
<b>WALES</b>	<b>39</b>	<b>12</b>	<b>29</b>	<b>723</b>	<b>681</b>	<b>21</b>	<b>32</b>	<b>1537</b>

- 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 CCSIW data on registered child care. Designed to Smile is active in 57.8% (1537/2657) of these settings.

**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
Abertawe Bro Morgannwg	378	287	75.9
Aneurin Bevan	457	225	49.2
Betsi Cadwaladr	721	406	56.3
Cardiff and Vale	336	202	60.1
Cwm Taf	228	181	79.4
Hywel Dda	388	196	50.5
Powys	149	40	26.8
<b>WALES</b>	<b>2657</b>	<b>1537</b>	<b>57.8</b>

*\*Denominator for settings sourced from WG central school lists and CCSIW registered childcare, Spring 2017*

- Table 4a provides details of settings taking part in any element of Designed to Smile by the Welsh Index of Multiple Deprivation (WIMD) 2014<sup>1</sup>.
- Across Wales 57% of the 1532 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.
- 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 2018 How To Guide.

**Table 4a The proportion deprivation status of settings taking part according to WIMD 2014, by Unitary Authority**

LHB		Number of settings taking part in D2S	% taking part in each deprivation quintile				
			Least deprived	Second least deprived	Middle deprived	Second most deprived	Most deprived
<b>ABMU</b>	<b>ABMU</b>	<b>287</b>	<b>16.0</b>	<b>10.1</b>	<b>15.3</b>	<b>24.7</b>	<b>33.8</b>
ABMU	Bridgend	86	17.4	12.8	10.5	30.2	29.1
ABMU	Neath Port Talbot	83	6.0	12.0	14.5	32.5	34.9
ABMU	Swansea	117	22.2	6.0	19.7	15.4	36.8
	BLANK	1	0.0	100.0	0.0	0.0	0.0
<b>Aneurin Bevan</b>		<b>225</b>	<b>0.9</b>	<b>6.2</b>	<b>16.9</b>	<b>30.2</b>	<b>45.8</b>
Aneurin Bevan	Blaenau Gwent	45	0.0	4.4	11.1	33.3	51.1
Aneurin Bevan	Caerphilly	79	2.5	3.8	22.8	26.6	44.3
Aneurin Bevan	Monmouth	10	0.0	20.0	0.0	80.0	0.0
Aneurin Bevan	Newport	48	0.0	0.0	10.4	18.8	70.8
Aneurin Bevan	Torfaen	43	0.0	16.3	23.3	34.9	25.6
<b>Betsi Cadwaladr</b>		<b>406</b>	<b>5.9</b>	<b>17.7</b>	<b>27.6</b>	<b>29.1</b>	<b>19.7</b>
Betsi Cadwaladr	Anglesey	56	0.0	12.5	32.1	26.8	28.6
Betsi Cadwaladr	Conwy	67	4.5	19.4	22.4	32.8	20.9
Betsi Cadwaladr	Denbighshire	56	14.3	23.2	23.2	17.9	21.4
Betsi Cadwaladr	Flintshire	59	6.8	5.1	16.9	40.7	30.5
Betsi Cadwaladr	Gwynedd	80	2.5	28.8	36.3	27.5	5.0
Betsi Cadwaladr	Wrexham	88	8.0	14.8	30.7	28.4	18.2
<b>Cardiff &amp; Vale</b>		<b>202</b>	<b>17.3</b>	<b>13.9</b>	<b>12.4</b>	<b>19.3</b>	<b>37.1</b>
Cardiff & Vale	Cardiff	150	11.3	16.0	10.7	18.0	44.0
Cardiff & Vale	Vale of Glamorgan	52	34.6	7.7	17.3	23.1	17.3
<b>Cwm Taf</b>		<b>181</b>	<b>3.9</b>	<b>9.4</b>	<b>9.9</b>	<b>38.1</b>	<b>38.7</b>
Cwm Taf	Merthyr	53	5.7	5.7	17.0	39.6	32.1
Cwm Taf	RCT	128	3.1	10.9	7.0	37.5	41.4
<b>Hywel Dda</b>		<b>196</b>	<b>5.6</b>	<b>27.0</b>	<b>29.1</b>	<b>30.1</b>	<b>8.2</b>
Hywel Dda	Carmarthenshire	100	3.0	25.0	24.0	37.0	11.0
Hywel Dda	Ceredigion	39	17.9	23.1	43.6	15.4	0.0
Hywel Dda	Pembrokeshire	57	1.8	33.3	28.1	28.1	8.8
<b>Powys</b>		<b>40</b>	<b>17.5</b>	<b>22.5</b>	<b>25.0</b>	<b>17.5</b>	<b>17.5</b>
<b>WALES</b>		<b>1537</b>	<b>8.6</b>	<b>14.4</b>	<b>19.8</b>	<b>28.0</b>	<b>29.1</b>

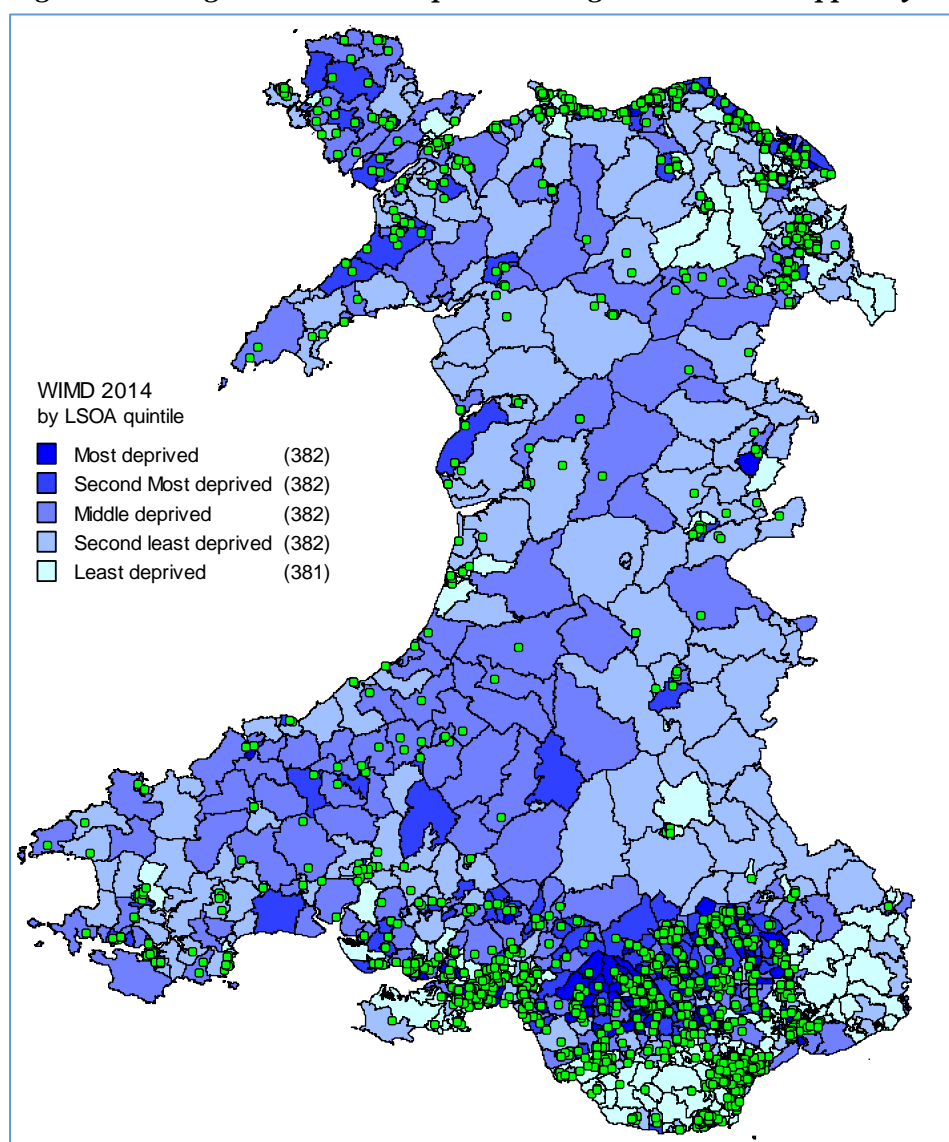
<sup>1</sup> For information on WIMD2014 consult the following: <https://stats.wales.gov.wales/Catalogue/Community-Safety-and-Social-Inclusion/Welsh-Index-of-Multiple-Deprivation/WIMD-2014>

- Some of the variation can be explained by relative deprivation across geographical areas. In Blaenau Gwent for example 84.4% 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 15.4% 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.

#### Settings offered D2S and participation in constituent elements

- Between September 2016 and July 2017, a total of 1,729 settings were offered Designed to Smile across Wales. 1,537 settings took part culminating in a Principality wide participation rate of 88.9%. (Tables 4b and 5).

**Figure 1 Settings invited to take part in Designed to Smile mapped by WIMD 2014**



- Figure 1 and 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.
- Setting participation rate for any aspect of Designed to Smile ranged from 78.4% (40/51) in Powys Health Board area to 100% (225/225) in Aneurin Bevan Health Board (Table 5).

**Table 4b Targeting by quintile of deprivation (WIMD 2014)**

		Settings taking part in at least one element of Designed to Smile						Settings not taking part in Designed to Smile			
AREA	All settings offered D2S in period	TB only	TB + 1 other element	All D2S	No to TB but participating in at least one other element	Not offered TB but participating in at least one other element	Withdrawn from TB, another element continues	Refused	TB suspended, no other activity	Withdrawn from D2S	Closed
ABMU	311	175	83	16	6		7	4		10	10
Least deprived	54	36	8	2				1		4	3
Second least deprived	35	21	5	2	1					4	2
Middle deprived	48	22	17	2	1		2	2		1	1
Second most deprived	75	41	26	1	1		2	1			3
Most deprived	99	55	27	9	3		3			1	1
Aneurin Bevan	225	97	46	63	16		3				
Least deprived	2	2	0								
Second least deprived	14	8	4	1	1						
Middle deprived	38	14	10	9	4		1				
Second most deprived	68	25	16	19	6		2				
Most deprived	103	48	16	34	5						
Betsi Cadwaladr	493	332	35	27	2	3	7	8		35	44
Least deprived	33	19	3	2						5	4
Second least deprived	93	64	3	1			4	3		9	9
Middle deprived	135	96	11	3		1	1	3		9	11
Second most deprived	137	94	13	7	1	2	1	1		7	11
Most deprived	95	59	5	14	1		1	1		5	9
Cardiff & Vale	228	102	53	25	18		4	14	3	2	7
Least deprived	40	24	9		2			3	1		1
Second least deprived	32	15	5	5	3			1	1		2
Middle deprived	29	9	7	4	4		1	1			3
Second most deprived	44	14	18	3	3		1	5			
Most deprived	83	40	14	13	6		2	4	1	2	1
Cwm Taf	216	107	33	33	2		6	5	6	2	22
Least deprived	8	6	0	1							1
Second least deprived	20	14	3					1		1	1
Middle deprived	21	11	2	3			2	1	2		
Second most deprived	81	41	15	12			1	1	2		9
Most deprived	86	35	13	17	2		3	2	2	1	11
Hywel Dda	205	144	46	5			1	2		2	5
Least deprived	12	11	0					1			
Second least deprived	54	50	3							1	
Middle deprived	62	42	13	2						1	4
Second most deprived	61	34	22	3				1			1
Most deprived	16	7	8				1				
Powys	51	14	24				2	7		4	
Least deprived	8	3	3				1			1	
Second least deprived	15	2	6				1	4		2	
Middle deprived	11	2	8					1			
Second most deprived	8	2	5					1			
Most deprived	9	5	2					1		1	
WALES	1729	971	320	169	44	3	30	40	9	55	88



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

AREA	All settings offered D2S	Yes to any element of D2S	All D2S	TB only	TB + 1 other element	No to TB but participating in at least one other element	Not offered TB but participating in at least one other element	Withdrawn from TB, another element	Refused	Withdrawn from D2S	TB suspended, no other	Closed
<b>ABMU</b>	<b>311</b>	<b>287</b>	<b>16</b>	<b>175</b>	<b>83</b>	<b>6</b>		<b>7</b>	<b>4</b>	<b>10</b>		<b>10</b>
Bridgend	91	86		65	20			1	1	3		1
Neath Port Talbot	94	83	4	45	25	4		5		4		7
Swansea	125	117	12	65	38	1		1	3	3		2
(blank)	1	1			0	1						
<b>Aneurin Bevan</b>	<b>225</b>	<b>225</b>	<b>63</b>	<b>97</b>	<b>46</b>	<b>16</b>		<b>3</b>				
Blaenau Gwent	45	45	13	21	4	5		2				
Caerphilly	79	79	22	28	21	7		1				
Monmouth	10	10	3	5	2							
Newport	48	48	13	23	8	4						
Torfaen	43	43	12	20	11							
<b>Betsi Cadwaladr</b>	<b>493</b>	<b>406</b>	<b>27</b>	<b>332</b>	<b>35</b>	<b>2</b>	<b>3</b>	<b>7</b>	<b>8</b>	<b>35</b>		<b>44</b>
Anglesey	70	56	4	48	4				2	3		9
Conwy	82	67	5	54	4	1	3			9		6
Denbighshire	65	56	5	38	7	1		5		2		7
Flintshire	73	59	8	39	10			2	1	4		9
Gwynedd	96	80	1	70	9				2	6		8
Wrexham	107	88	4	83	1				3	11		5
<b>Cardiff &amp; Vale</b>	<b>228</b>	<b>202</b>	<b>25</b>	<b>102</b>	<b>53</b>	<b>18</b>		<b>4</b>	<b>14</b>	<b>2</b>	<b>3</b>	<b>7</b>
Cardiff	166	150	21	75	37	15		2	5	1	3	7
Vale of Glamorgan	62	52	4	27	16	3		2	9	1		
<b>Cwm Taf</b>	<b>216</b>	<b>181</b>	<b>33</b>	<b>107</b>	<b>33</b>	<b>2</b>		<b>6</b>	<b>5</b>	<b>2</b>	<b>6</b>	<b>22</b>
Merthyr	59	53	9	30	10			4	1		4	1
RCT	157	128	24	77	23	2		2	4	2	2	21
<b>Hywel Dda</b>	<b>205</b>	<b>196</b>	<b>5</b>	<b>144</b>	<b>46</b>			<b>1</b>	<b>2</b>	<b>2</b>		<b>5</b>
Carmarthenshire	103	100		67	32			1	1			2
Ceredigion	43	39	5	33	1				1			3
Pembrokeshire	59	57		44	13					2		
<b>Powys</b>	<b>51</b>	<b>40</b>		<b>14</b>	<b>24</b>			<b>2</b>	<b>7</b>	<b>4</b>		
Powys	51	40		14	24			2	7	4		
<b>WALES</b>	<b>1729</b>	<b>1537</b>	<b>169</b>	<b>971</b>	<b>320</b>	<b>44</b>	<b>3</b>	<b>30</b>	<b>40</b>	<b>55</b>	<b>9</b>	<b>88</b>

*\*columns with pale grey header add up to “Yes to any D2S element” column.*

- The supervised tooth brushing participation rate for Wales was 84% (169 + 971 + 320/1729 or 1460/1729). The participation rate has reduced by 4% when compared with April 2015-March 2016 (88%, 1474/1668).
- Unitary authority level participation rates in any element of D2S ranged from 76.5% in Powys to 100% in the unitary authorities within Aneurin Bevan Health Board (Table 5).
- It should be noted however, there remain 10 settings in the Aneurin Bevan Health Board area who have consistently refused to take part in any aspect of the programme. They are contacted from time to time to see if they are in a position to take part – but they have not taken up the offer.
- 40 settings declined to take part in the scheme between September 2016 – July 2017, which is a much larger figure when compared with the 4 refusing between April 2015 – March 2016. The main reason for this is linked to ensuring that we account for **all** settings offered the programme in the targeting tables and is unlikely to reflect a change in settings actually refusing to take part.
- Reasons for refusal have included staffing issues, wanting to observe other settings before taking part and concentrating on other performance related issues.

## Supervised tooth brushing

*Total settings in D2S* **1,537**

*Total settings brushing* **1,460**

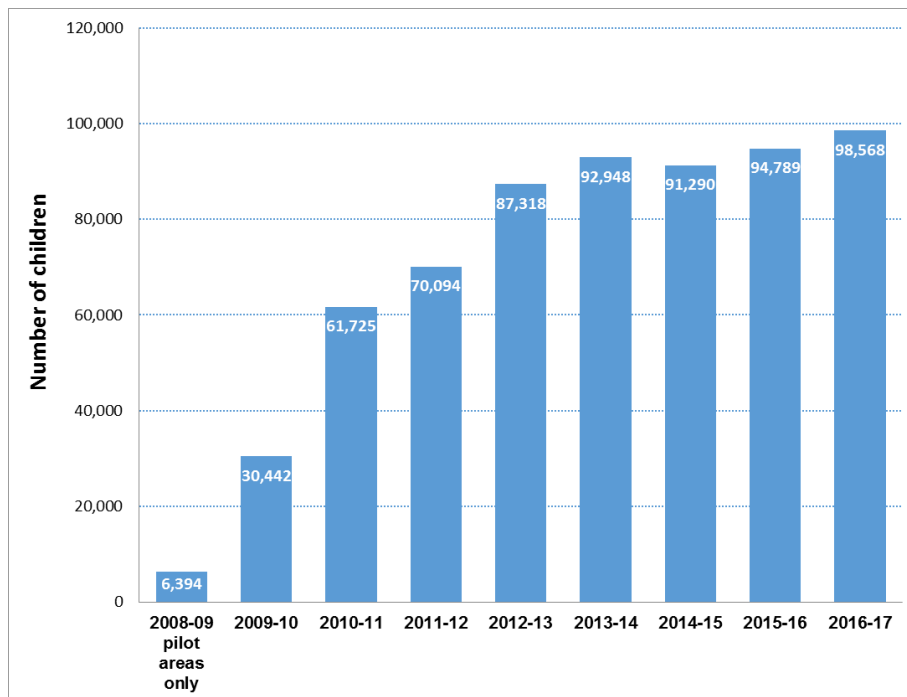
*Total children brushing* **98,568**

*Total money spent* **£3,725,492**

AREA	TB only	TB & 1 element	All D2S - ie TB, FV & FS	ALL SETTINGS BRUSHING	CHILDREN BRUSHING
Blaenau Gwent	21	4	13	38	2,590
Caerphilly	28	21	22	71	4,932
Monmouth	5	2	3	10	643
Newport	23	8	13	44	3,610
Torfaen	20	11	12	43	4,059
<b>Aneurin Bevan</b>	<b>97</b>	<b>46</b>	<b>63</b>	<b>206</b>	<b>15,834</b>
Bridgend	65	20	0	85	6,074
Neath Port Talbot	45	25	4	74	5,613
Swansea	65	38	12	115	11,147
<b>ABMU</b>	<b>175</b>	<b>83</b>	<b>16</b>	<b>274</b>	<b>22,834</b>
Anglesey	48	4	4	56	2,575
Conwy	54	4	5	63	2,981
Denbighshire	38	7	5	50	2,730
Flintshire	39	10	8	57	4,430
Gwynedd	70	9	1	80	3,518
Wrexham	83	1	4	88	5,267
<b>Betsi Cadwaladr</b>	<b>332</b>	<b>35</b>	<b>27</b>	<b>394</b>	<b>21,501</b>
Cardiff	75	37	21	133	11,082
Vale	27	16	4	47	3,855
<b>Cardiff &amp; Vale</b>	<b>102</b>	<b>53</b>	<b>25</b>	<b>180</b>	<b>14,937</b>
Merthyr	30	10	9	49	2,625
RCT	77	23	24	124	8,037
<b>Cwm Taf</b>	<b>107</b>	<b>33</b>	<b>33</b>	<b>173</b>	<b>10,662</b>
Carmarthenshire	67	32	0	99	5,267
Ceredigion	33	1	5	39	1,914
Pembrokeshire	44	13	0	57	3,054
<b>Hywel Dda</b>	<b>144</b>	<b>46</b>	<b>5</b>	<b>195</b>	<b>10,235</b>
<b>Powys</b>	<b>14</b>	<b>24</b>	<b>0</b>	<b>38</b>	<b>2,565</b>
<b>WALES</b>	<b>971</b>	<b>320</b>	<b>169</b>	<b>1,460</b>	<b>98,568</b>

- 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 2015-16 and the current reporting period the total number of children brushing increased by 3,819, from 94,749 to 98,568. As most of the eligible settings are now taking part this steady increase in numbers represents consolidation of the programme (Figure 2).

**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, 52.4% 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 38.5% in Powys to 66.6% in ABMU (Table 7). This may be a reflection of relative deprivation across Wales.
- Whereas 5.7% 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**

Agegroup	Number of children brushing	Denominator	% coverage
Pre-school - Year 2	90,847	137684*	66.0
Pre-school - Year 2	90,847	173342**	52.4
Pre-school - Year 1	68,444	104196***	65.7
School Years 3-6	7,721	129473****	6.0

*\*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**

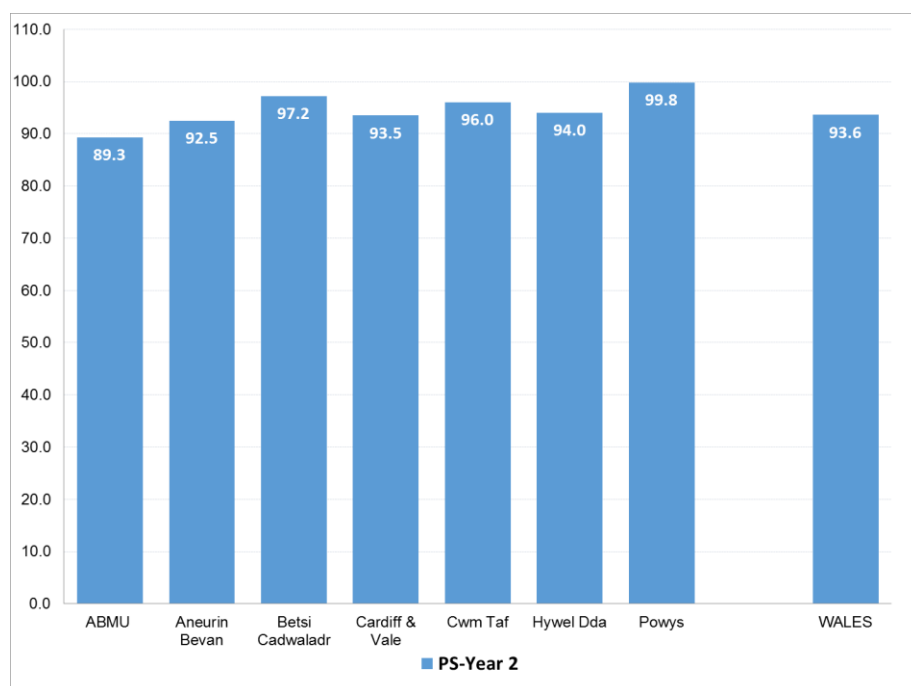
	Number of children brushing nursery - Yr 2	Denominator children aged 2-6	Coverage	Number of children brushing Year 3-6	Denominator children aged 7-10	Coverage
<b>WALES</b>	<b>90847</b>	<b>173342</b>	<b>52.4</b>	<b>7721</b>	<b>129473</b>	<b>6.0</b>
ABMU	18826	28251	66.6	4008	21781	18.4
Aneurin Bevan	15834	34034	46.5		25695	0.0
Betsi Cadwaladr	17816	38869	45.8	3685	28609	12.9
Cardiff and Vale	14937	27921	53.5		19627	0.0
Cwm Taf	10634	17501	60.8	28	12662	0.2
Hywel Dda	10235	20101	50.9		15653	0.0
Powys	2565	6665	38.5		5446	0.0

### *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. This can be difficult and time consuming to obtain, particularly within the most deprived quintile.
- 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 105,604; with parents/guardians providing consent for 98,931 children (93.7%); and 98,568 (93.3%) actually brushing during the period.

- Consent rates again were very high for the scheme. The overall consent rate for Wales was 93.7% (93.6% and 94.6% 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 88% in Swansea to 99.8% in Powys (Table 8).
- Reporting LHB consent rates are presented in Figure 3.

**Figure 3: Percentage children with consent by reporting LHB for pre-school-School year 2**



**Table 8 Children brushing across Wales: Preschool-Year 2**

AREA	Number of settings	Number of classes	Number of children eligible during the reporting period	Number of these children with consent	Number of children who are brushing during the reporting period
<b>ABMU</b>	<b>271</b>	<b>637</b>	<b>21081</b>	<b>18826</b>	<b>18826</b>
Bridgend	85	178	6252	5719	5719
Neath Port Talbot	73	181	5060	4507	4507
Swansea	113	278	9769	8600	8600
<b>Aneurin Bevan</b>	<b>206</b>	<b>609</b>	<b>17237</b>	<b>15945</b>	<b>15834</b>
Blaenau Gwent	38	96	2839	2591	2590
Caerphilly	71	216	5436	5066	4932
Monmouth	10	25	706	643	643
Newport	44	127	4022	3586	3610
Torfaen	43	145	4234	4059	4059
<b>Betsi Cadwaladr</b>	<b>392</b>	<b>757</b>	<b>18357</b>	<b>17837</b>	<b>17816</b>
Anglesey	56	120	2029	2017	1995
Conwy	62	99	3053	2906	2906
Denbighshire	50	88	2400	2258	2258
Flintshire	57	133	3294	3274	3274
Gwynedd	79	160	3023	2891	2891
Wrexham	88	157	4558	4491	4492
<b>Cardiff and Vale</b>	<b>178</b>	<b>434</b>	<b>16060</b>	<b>15014</b>	<b>14937</b>
Cardiff	131	315	11979	11141	11082
Vale of Glamorgan	47	119	4081	3873	3855
<b>Cwm Taf</b>	<b>173</b>	<b>363</b>	<b>11166</b>	<b>10716</b>	<b>10634</b>
Merthyr	49	90	2884	2678	2597
RCT	124	273	8282	8038	8037
<b>Hywel Dda</b>	<b>194</b>	<b>381</b>	<b>10955</b>	<b>10294</b>	<b>10235</b>
Cardiff and Vale	97	203	5075	4796	5267
Ceredigion	40	73	2063	1920	1914
Pembrokeshire	57	105	3817	3578	3054
<b>Powys</b>	<b>38</b>	<b>125</b>	<b>2570</b>	<b>2565</b>	<b>2565</b>
<b>WALES</b>	<b>1452</b>	<b>3306</b>	<b>97426</b>	<b>91197</b>	<b>90847</b>

**Table 9 Children brushing across Wales: Year 3-6**

	Number of settings	Number of classes	Children eligible for inclusion	Number whose parents consent	% children with consent	Total number of children brushing
<b>ABMU</b>	<b>47</b>	<b>173</b>	<b>3832</b>	<b>3502</b>	<b>91.4</b>	<b>3502</b>
Bridgend	1	4	115	104	90.4	104
Neath Port Talbot	13	52	1044	952	91.2	952
Swansea	33	117	2673	2446	91.5	2446
<b>Betsi Cadwaladr</b>	<b>63</b>	<b>235</b>	<b>3959</b>	<b>3744</b>	<b>94.6</b>	<b>3744</b>
Anglesey	13	52	517	450	87.0	450
Conwy	3	11	290	253	87.2	253
Denbighshire	6	24	432	413	95.6	413
Flintshire	17	62	1425	1414	99.2	1414
Gwynedd	16	56	553	496	89.7	496
Wrexham	8	30	742	718	96.8	718
<b>Cwm Taf</b>	<b>1</b>	<b>4</b>	<b>115</b>	<b>112</b>	<b>97.4</b>	<b>112</b>
RCT	1	4	115	112	97.4	112
<b>WALES</b>	<b>111</b>	<b>412</b>	<b>7906</b>	<b>7358</b>	<b>93.1</b>	<b>7358</b>
<b>TOTAL (both year groups) *</b>			<b>100426</b>	<b>94857</b>	<b>94.5</b>	<b>94789</b>

### *Frequency of brushing*

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

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

<b>LHB</b>	<b>Nursery - School Year 2</b>	<b>School Years 3 - 6</b>	<b>All</b>
ABMU	4.8	4.8	4.8
Aneurin Bevan	4.7		4.7
Betsi Cadwaladr	4.6	4.8	4.7
Cardiff and Vale	4.5		4.5
Cwm Taf	4.7	5.0	4.7
Hywel Dda	4.9		4.9
Powys	4.4		4.4
<b>WALES</b>	<b>4.7</b>	<b>4.8</b>	<b>4.7</b>

### *Children receiving oral health education (OHE)*

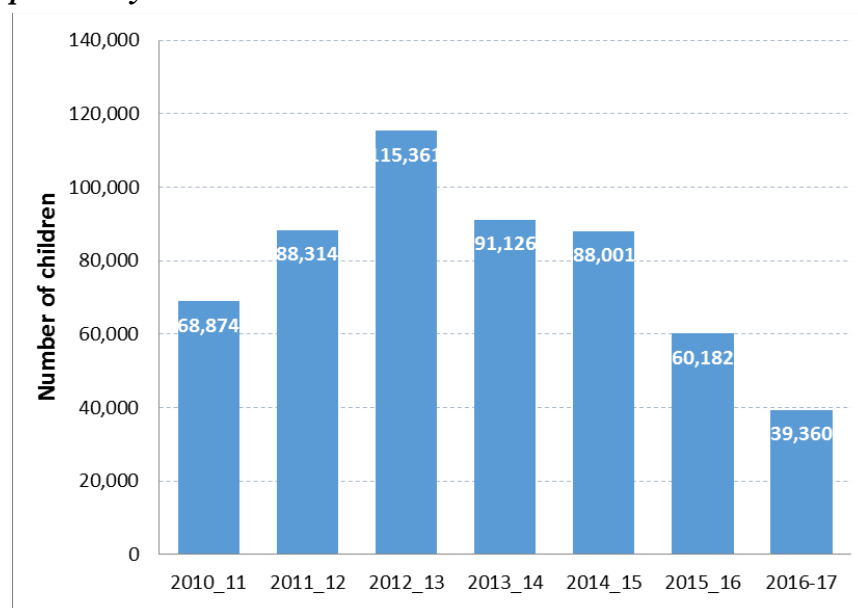
Children taking part in Designed to Smile receive oral health education sessions which include information on the wider determinants of health such as diet and nutrition. These sessions are given to children taking part in the supervised tooth brushing and the fluoride varnish/fissure sealant elements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

- 32,860 children across Wales received oral health education sessions which incorporated not merely OHP but also focused on aspects such as nutrition and healthy food choices; 32,860 children from Pre-school – School Year 2, 6,500 from School Years 3-6 (Table 11).
- Since the 2012-13 reporting year this activity has been falling which is likely to be linked to the fact that the programme is well established and most children have already received their OHE sessions (Figures 4 & 5). This will also be a reflection of recent guidance in the How to Guide.

**Table 11: Children receiving oral health education sessions**

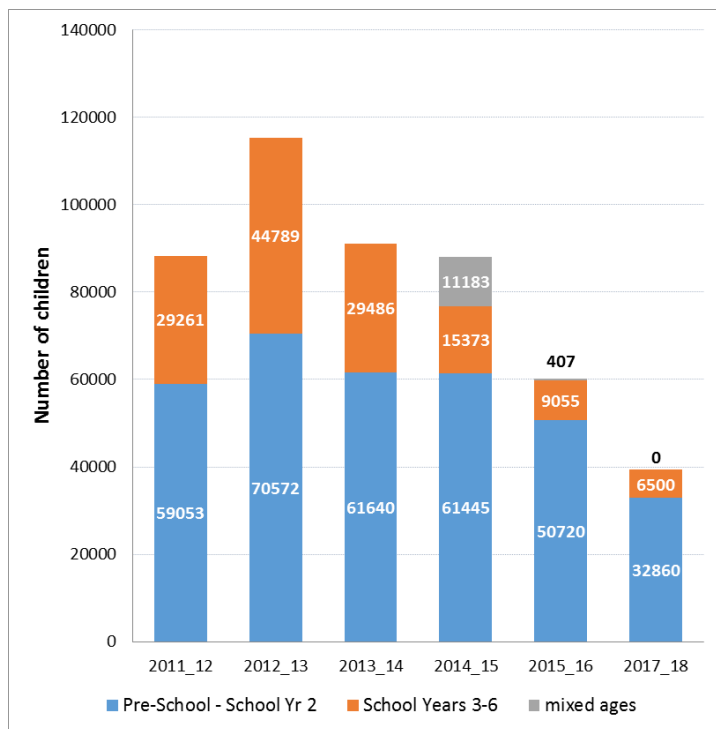
	Nursery - Year 2			School Years 3 - 6		
AREA	Number of settings	No. of children eligible	Number of children taking part in oral health education	Number of settings	No. of children eligible	Number of children taking part in oral health education
<b>ABMU</b>	<b>115</b>	<b>14044</b>	<b>14044</b>	<b>77</b>	<b>6189</b>	<b>6189</b>
Bridgend	22	2381	2381	15	1129	1129
Neath Port Talbot	42	4298	4298	26	1595	1595
Swansea	51	7365	7365	36	3465	3465
<b>Aneurin Bevan</b>	<b>96</b>	<b>3762</b>	<b>3762</b>			
Blaenau Gwent	21	951	951			
Caerphilly	30	1077	1077			
Monmouth	5	119	119			
Newport	21	934	934			
Torfaen	19	681	681			
<b>Betsi Cadwaladr</b>	<b>351</b>	<b>18193</b>	<b>3018</b>	<b>63</b>	<b>3913</b>	<b>202</b>
Anglesey	54	1981	0	15	656	0
Conwy	50	3053	1336	1	87	0
Denbighshire	43	2371	489	7	495	55
Flintshire	45	3293	73	16	1157	0
Gwynedd	80	2937	0	15	729	0
Wrexham	79	4558	1120	9	789	147
<b>Cardiff &amp; Vale</b>	<b>92</b>	<b>7768</b>	<b>6939</b>	<b>11</b>	<b>116</b>	<b>101</b>
Cardiff	74	6259	5569	7	69	57
VALE	18	1509	1370	4	47	44
<b>Cwm Taf</b>	<b>52</b>	<b>5417</b>	<b>4815</b>			
Merthyr Tydfil	11	958	682			
RCT	41	4459	4133			
<b>Hywel Dda</b>	<b>7</b>	<b>231</b>	<b>231</b>	<b>1</b>	<b>8</b>	<b>8</b>
Carmarthenshire	5	144	144	1	8	8
Ceredigion	2	87	87			
<b>Powys</b>	<b>1</b>	<b>51</b>	<b>51</b>			
<b>WALES</b>	<b>713</b>	<b>49466</b>	<b>32860</b>	<b>152</b>	<b>10226</b>	<b>6500</b>

**Figure 4: Children receiving oral health education sessions in 2016/17 compared with previous years**





**Figure 5: Children receiving oral health education sessions in 2016/17 compared with previous years split by age group**



## Home packs

- In each classroom where tooth brushing is taking place, the CDS aim to provide each child with at least 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 12: Home packs sent out – for settings taking part in the TB element of D2S**

AREA	All ages			
	No. of settings	Children who received Home Packs in this setting during the reporting period.	Number of packs distributed	No. of packs per child (calculated from packs distributed/number of children in receipt)
<b>ABMU</b>	<b>275</b>	<b>25112</b>	<b>62526</b>	<b>2.5</b>
Bridgend	86	6487	15005	2.3
Neath Port Talbot	74	6171	15460	2.5
Swansea	115	12454	32061	2.6
<b>Aneurin Bevan</b>	<b>206</b>	<b>15604</b>	<b>33211</b>	<b>2.1</b>
Blaenau Gwent	37	2723	5774	2.1
Caerphilly	71	4956	10420	2.1
Monmouth	10	619	1238	2.0
Newport	44	3475	7523	2.2
Torfaen	44	3831	8256	2.2
<b>Betsi Cadwaladr</b>	<b>394</b>	<b>22070</b>	<b>66107</b>	<b>3.0</b>
Anglesey	56	2637	7912	3.0
Conwy	63	3100	9200	3.0
Denbighshire	50	2876	8628	3.0
Flintshire	57	4444	13328	3.0
Gwynedd	80	3666	10998	3.0
Wrexham	88	5347	16041	3.0
<b>Cardiff and Vale</b>	<b>178</b>	<b>15974</b>	<b>31292</b>	<b>2.0</b>
Cardiff	131	11838	22683	1.9
Vale of Glamorgan	47	4136	8609	2.1
<b>Cwm Taf</b>	<b>171</b>	<b>11093</b>	<b>21007</b>	<b>1.9</b>
Merthyr	48	2850	5259	1.8
RCT	123	8243	15748	1.9
<b>Hwyel Dda</b>	<b>194</b>	<b>16981</b>	<b>15368</b>	<b>0.9</b>
Carmarthenshire	98	7695	4797	0.6
Ceredigion	39	1895	3180	1.7
Pembrokeshire	57	7391	7391	1.0
<b>Powys</b>	<b>37</b>	<b>2840</b>	<b>4934</b>	<b>1.7</b>
<b>WALES</b>	<b>1455</b>	<b>109674</b>	<b>234445</b>	<b>2.1</b>

- Table 12 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.
- 234,445 packs were distributed between September 2016 and July 2017. This represents an increase of 62,044 packs compared with the previous year when 172,401 home packs were distributed.
- Across Wales an average of 2.1 packs were distributed; ranging from 0.6 packs per child in Carmarthenshire to 3.0 packs in the unitary authorities in Betsi Cadwaladr (Table 12).

**Table 13: Home packs related to the Fissure Sealant and Fluoride Varnish elements of D2S and “other” activity**

	Fissure Sealant and Fluoride Varnish			Fissure Sealant			Fluoride Varnish		
	Home Packs distributed	Children who received Home Packs	Average times a year	Home Packs distributed	Children who received Home Packs	Average times a year	Home Packs distributed	Children who received Home Packs	Average times a year
<b>Aneurin Bevan</b>	<b>10860</b>	<b>5354</b>	<b>2.0</b>	<b>1107</b>	<b>555</b>	<b>2.0</b>	<b>106</b>	<b>106</b>	<b>1.0</b>
Blaenau Gwent	2960	1480	2.0	320	160	2.0	106	106	1.0
Caerphilly	2484	1242	2.0	461	232	2.0			
Monmouth	506	177	2.9						
Newport	2732	1366	2.0	326	163	2.0			
Torfaen	2178	1089	2.0						
<b>Betsi Cadwaladr</b>	<b>1617</b>	<b>539</b>	<b>3.0</b>	<b>10221</b>	<b>3407</b>	<b>3.0</b>	<b>33</b>	<b>11</b>	<b>3.0</b>
Angelesey	159	53	3.0	87	29	3.0	33	11	3.0
Conwy				1632	544	3.0			
Denbighshire	177	59	3.0	4509	1503	3.0			
Flintshire	1281	427	3.0	1101	367	3.0			
Gwynedd				2004	668	3.0			
Wrexham				888	296	3.0			
<b>WALES</b>	<b>12477</b>	<b>5893</b>	<b>2.1</b>	<b>11328</b>	<b>3962</b>	<b>2.9</b>	<b>139</b>	<b>117</b>	<b>1.2</b>

- A total of 23,944 packs were distributed to 9,972 children in settings taking part in the fissure sealant and/or the fluoride varnish elements of the programme – these children received an average of 2.4 packs during the reporting period (Table 13).
- In ABMU all children taking part in the fluoride varnish element of the scheme are also taking part in the supervised tooth brushing, their home pack data is presented in Table 12.

	Number of packs	Cost of packs
Toothbrushing	234,445	114,878.05
Fluoride varnish/Fissure Sealant	23,944	11,732.56
<b>TOTAL</b>	<b>258,389</b>	<b>126,610.61</b>

*\*a box of 50 home packs costs £24.50*

- The total costs of the home packs have been calculated as £126,610.60 based on the fact that a box of 50 home packs costs £24.50 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 14: Parents attending Oral Health Promotion (OHP) talks**

	Number of settings	Parents taking part in group oral health education sessions	Parents taking part in one to one sessions
<b>ABMU</b>	<b>276</b>	<b>63</b>	<b>276</b>
Bridgend	85	0	85
Neath Port Talbot	75	54	75
Swansea	116	9	116
<b>Aneurin Bevan</b>	<b>204</b>	<b>559</b>	<b>204</b>
Blaenau Gwent	39	25	39
Caerphilly	70	270	70
Monmouth	10	0	10
Newport	42	252	42
Torfaen	43	12	43
<b>Betsi Cadwaladr</b>	<b>394</b>	<b>554</b>	<b>394</b>
Anglesey	56	0	56
Conwy	63	8	63
Denbighshire	50	134	50
Flintshire	57	134	57
Gwynedd	80	0	80
Wrexham	88	278	88
<b>Cardiff &amp; Vale</b>	<b>90</b>	<b>640</b>	<b>90</b>
Cardiff	64	511	64
Vale of Glamorgan	26	129	26
<b>Cwm Taf</b>	<b>71</b>	<b>488</b>	<b>71</b>
Merthyr Tydfil	25	197	25
RCT	46	291	46
<b>Hywel Dda</b>	<b>58</b>	<b>0</b>	<b>57</b>
Carmarthenshire	20	0	19
Ceredigion	13	0	13
Pembrokeshire	25	0	25
<b>Powys</b>	<b>38</b>	<b>13</b>	<b>38</b>
<b>WALES</b>	<b>1131</b>	<b>2317</b>	<b>1130</b>

- There has been a reduction in oral health education activity associated with parents of children taking part in Designed to Smile in recent years. In 2016/17 the total numbers of parents taking part in group sessions were 2,317 and one to one sessions were 1,130 (Table 14). In 2013/14 for example, these figures were 5,831 and 4,288 respectively.
- 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:
- Aneurin Bevan continues to offer training to both generic and Flying Start Health Visitors. The CDS has been working closely with Flying Start colleagues to update training to align with the new direction from WG. The Oral Health Promotion Steering Group continues to meet regularly with Flying Start and Healthy Schools representatives.
- The CDS D2S team working in Cwm Taf provide strategic input into the Children's Oral Health Group. Cwm Taf have recently launched their 'Baby Teeth Do Matter' campaign aimed at under 5's.

### *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.

**Table 15: Setting (school or nursery) personnel receiving Designed to Smile training**

AREA	Number of settings with associated activity	No. of setting personnel taking part in implementation of toothbrushing	Staff trained per setting to deliver toothbrushing	No. of setting personnel taking part in wider oral health education
<b>ABMU</b>	<b>276</b>	<b>3905</b>	<b>14.1</b>	<b>3905</b>
Bridgend	85	1237	14.6	1237
Neath Port Talbot	75	944	12.6	944
Swansea	116	1724	14.9	1724
<b>Aneurin Bevan</b>	<b>204</b>	<b>1774</b>	<b>8.7</b>	<b>1774</b>
Blaenau Gwent	39	411	10.5	411
Caerphilly	70	500	7.1	500
Monmouth	10	56	5.6	56
Newport	42	362	8.6	362
Torfaen	43	445	10.3	445
<b>Betsi Cadwaladr</b>	<b>394</b>	<b>1890</b>	<b>4.8</b>	<b>1890</b>
Anglesey	56	224	4.0	224
Conwy	63	281	4.5	281
Denbighshire	50	257	5.1	257
Flintshire	57	326	5.7	326
Gwynedd	80	345	4.3	345
Wrexham	88	457	5.2	457
<b>Cardiff &amp; Vale</b>	<b>90</b>	<b>171</b>	<b>1.9</b>	<b>0</b>
Cardiff	64	107	1.7	0
Vale of Glamorgan	26	64	2.5	0
<b>Cwm Taf</b>	<b>71</b>	<b>136</b>	<b>1.9</b>	<b>1</b>
Merthyr Tydfil	25	46	1.8	0
RCT	46	90	2.0	1
<b>Hywel Dda</b>	<b>58</b>	<b>304</b>	<b>5.2</b>	<b>321</b>
Carmarthenshire	20	126	6.3	126
Ceredigion	13	58	4.5	75
Pembrokeshire	25	120	4.8	120
<b>Powys</b>	<b>38</b>	<b>13</b>	<b>0.3</b>	<b>17</b>
<b>WALES</b>	<b>1131</b>	<b>8193</b>	<b>7.2</b>	<b>7908</b>

- Between September 2016 and July 2017 the CDS provided some training to 77.5% (1,131) of the 1,460 settings taking part in the supervised tooth brushing element of D2S (Table 15).

- Overall, 8,193 and 7,908 members of school/nursery staff received training in the implementation of supervised tooth brushing and wider oral health education respectively.

*Primary care personnel and community initiatives*

- 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 (Table 16).

**Table 16: Primary care personnel and community initiatives receiving training from the D2S team**

	Early Years	Flying Start	Child carers (inc students)	Healthy Schools	Health visitors (inc students)	Midwives	School nurses	Dietitians	Primary care students	Dental nurses	Other
ABMU	122			3	141	3	23		85		26
Aneurin Bevan	4			3	19	5		2	6		82
Betsi Cadwaladr				44	218	5	62	17	456		120
Cardiff and Vale		108			87						
Cwm Taf		19	74			9			43	8	
Hywel Dda	51				57		58	2	52		53
Powys	1				11		1				
<b>WALES</b>	<b>178</b>	<b>127</b>	<b>74</b>	<b>50</b>	<b>533</b>	<b>22</b>	<b>144</b>	<b>21</b>	<b>642</b>	<b>8</b>	<b>281</b>

- During 2016-17 CDS D2S teams had contacts with 642, primary care students, 533 health visitors, 50 individuals working in the Healthy Schools initiative.
- D2S teams also delivered a range of activities working with 281 “other” professionals in the community, including language and play settings and social services.
- In ABMU links with the health visiting teams continue to strengthen; especially as ‘Lift the Lip’ is now being piloted. There is also stronger partnership working with organisations involved with the pre-school age groups (in line with First 1000 Days Campaign) and with the D2S refocus.
- In Aneurin Bevan strong links have been developed with the Early Years Development Childcare and Partnership (EYDCP) regarding the First 1000 Days Programme to establish good oral care messages. Healthy Schools co-ordinators and Healthy Pre School officers work closely with D2S to ensure healthy oral health habits are introduced into child care settings and schools. Some members of the D2S team have been trained in MECC in order to cascade to relevant partners and GDPs working towards the refocus of the programme.
- In Betsi Cadwaladr links still continue with HSPSS and Healthy Schools co-ordinators. Work continues within Flying Start and Community First areas involving a full spread of primary care personnel, including family liaison officers, key workers and health visitors. The CDS is proactive with parenting groups, high-need baby clinics and mother and toddler groups within Sure Start/Flying Start and Barnardo’s areas. Local Further Education Colleges and Glyndwr University receive support from the Designed to Smile team who have input on a range of child care, teacher

training and student health visitor courses. The D2S team have been proactive in the strategic planning for younger children contributing towards the 1st 1000 days and Healthy Child Wales agendas.

- In Cardiff and Vale and Cwm Taf there have been links made with Health Visitor Leads and Primary Care to establish collaborative working in line with the refocus/WHC June 2017.
- In Hywel Dda the D2S team continue to engage with the wider health professionals, namely the health visiting teams, flying start, community firsts, school nurses and the healthy school teams. With so many other initiatives being introduced i.e. Childs first 1000 days; the opportunity to strengthen links and develop integrated methods of work with others will be adopted as and when required.
- In Powys Dental Health Educators continue to work with health visitors providing advice to bumps and babies groups and Action for Children, in our flying start areas. Work alongside the dietitians, to deliver a session for those attending the OCN Nutrition course continues. The OCN Nutrition course is attended by early years and playgroup leaders as well as health visitors and school nurses.

## Quality Assessment

- Before any setting 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 action<sup>2</sup>. 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 17: Quality assessments carried out by UAs within reporting LHBs**

Health Board	Number of settings	Number of QA assessments undertaken	Number of times where remedial measures were necessary	Number of suspensions
ABMU	265	1586	17	
Aneurin Bevan	206	1724	14	
Betsi Cadwaladr	394	2175	0	
Cardiff and Vale	178	1493	35	2
Cwm Taf	175	1694	60	2
Hywel Dda	214	1031	6	2
Powys	39	199	3	
<b>WALES</b>	<b>1471</b>	<b>9902</b>	<b>135</b>	<b>6</b>

Table 17 shows the number of QAs carried out in each LHB during the reporting period. 9,902 QAs were carried out across Wales between September 2016 and July 2017. This represents an increase of 252 QAs (there were 9,650 QAs in 2015/2016) when compared with the previous reporting period. The number of times remedial measures were necessary (135) and numbers of suspensions (6) have fallen when compared with those recorded for last year (in 2015/16 there were 509 and 14 respectively).

<sup>2</sup> 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 18: Wales Fissure Sealant Programme Activity September 2016 – July 2017, compared with previous years**

	Total School Year 2016-17	Total April 2015 - March 2015- 16	Total April 2014 - March 2015	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	231	181	187	180	196	191	456	229	229	248	281
Total number of children assessed	10,717	8,198	8,484	8,485	8,395	9,044	16,570	7,748	8,250	8,026	7,564
Total number of children having one or more fissure sealant applied	6,104	5,952	5,376								
Total number of children receiving oral hygiene advice/instruction	12,710	12,406	13,858	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	see Table 13 above	see Table 13 above	6,559	12,403	11,496	12,725	16,331	9,495	7,746	19,700	18,220
Total number of teeth sealed	16,072	17,591	15,763	15,615	11,728	11,428	14,075	12,015	10,397	10,291	9,797

- Across Wales between September 2016 and July 2017 231 schools took part (Table 18).
- 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, which has reduced considerably since 2010.
- 10,717 children were assessed during September 2016-July 2017.
- The total number of teeth sealed during September 2016-July 2017 was 16,072.
- Area breakdowns for activity associated with the Fissure Sealant element of Designed to Smile are presented in Table 19.
- In Aneurin Bevan, direct access therapists have completed the Fissure Sealant Programme for the last time this year. Schools are disappointed to have lost a valued programme which has been active in 88 schools for the past 15 years.

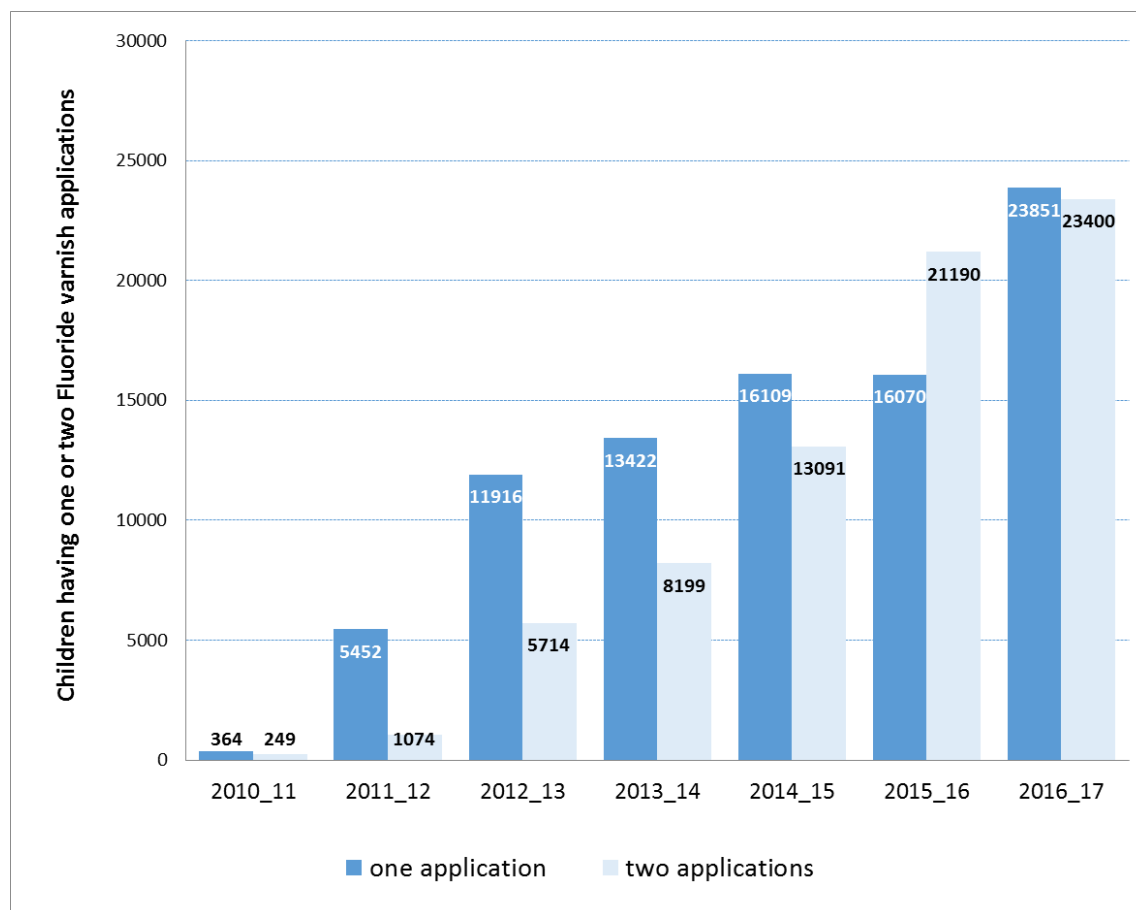
**Table 19: Fissure Sealant Programme Activity by Health Board September 2016 – July 2017**

	Number of settings	Number of children eligible in the setting	No. consenting to FS assessment	No. of children being assessed	Number of children having 1 or more FS applied	Number of teeth sealed	Children receiving oral hygiene advice/ instruction FSP
<b>ABMU</b>	<b>18</b>	<b>2341</b>	<b>959</b>	<b>879</b>	<b>819</b>	<b>2697</b>	<b>799</b>
Neath Port Talbot	6	764	304	275	233	830	275
Swansea	12	1577	655	604	586	1867	524
<b>Aneurin Bevan</b>	<b>82</b>	<b>5605</b>	<b>2833</b>	<b>2629</b>	<b>1511</b>	<b>3903</b>	<b>5605</b>
Blaenau Gwent	20	1368	802	739	473	1215	1368
Caerphilly	30	1496	824	768	487	1223	1496
Monmouth	3	177	65	61	38	112	177
Newport	17	1613	655	602	240	696	1613
Torfaen	12	951	487	459	273	657	951
<b>Betsi Cadwaladr</b>	<b>69</b>	<b>6306</b>	<b>4485</b>	<b>4110</b>	<b>2511</b>	<b>6582</b>	<b>6306</b>
Angelesey	4	297	224	204	135	390	297
Conwy	12	816	489	438	219	708	816
Denbighshire	18	2020	1347	1234	743	1962	2020
Flintshire	20	1781	1326	1214	800	1832	1781
Gwynedd	10	871	694	646	367	1064	871
Wrexham	5	521	405	374	247	626	521
<b>Cardiff &amp; Vale</b>	<b>27</b>	<b>2095</b>	<b>1299</b>	<b>1196</b>	<b>641</b>	<b>1418</b>	<b>0</b>
Cardiff	24	1944	1201	1099	606	1345	0
Vale of Glamorgan	3	151	98	97	35	73	0
<b>Cwm Taf</b>	<b>35</b>	<b>1696</b>	<b>1141</b>	<b>993</b>	<b>622</b>	<b>1472</b>	<b>0</b>
Merthyr Tydfil	11	615	398	313	208	464	0
RCT	24	1081	743	680	414	1008	0
<b>WALES</b>	<b>231</b>	<b>18043</b>	<b>10717</b>	<b>9807</b>	<b>6104</b>	<b>16072</b>	<b>12710</b>

## 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 6 Children receiving Fluoride Varnish Applications across Wales since 2010/11**



*\*from 2014-15 Fluoride varnish data has been reported for school year (i.e. September – July, as opposed to financial year).*

- The fluoride varnish element of the D2S programme has continued to grow; Figure 6 highlights its uptake in Wales since 2010/11.
- In the 2016/17 school year a total 23,400 children received two applications with an additional 23,851 having one application of fluoride varnish across Wales. LHB and UA breakdowns are presented in Table 20.
- In Aneurin Bevan activity has continued to increase, schools are happy to participate in this element of the programme as it is less time consuming for school staff. Maternity leave and long term sickness have once again presented challenges for the team but again with exceptional team work the programmes have been completed.

- The fluoride varnish “extended duties” courses run by the North Wales Community Dental Service have been completed. This course was open to dental nurses from all branches of dentistry across North Wales.
- In Powys the D2S programme has funded 2 CDS dental nurses to attend the fluoride varnish programme and they will now be able to help with the fluoride application when CDS rotas allow. This will help to ensure that D2S and CDS staff are integrated and raising awareness of the same dental health messages and working towards the same goals.

**Table 20: Fluoride Varnish applications**

AREA	Number of settings	Number of children eligible to take part in setting	Number of children with consent	Number excluded due to medical reasons	Number of children receiving one six monthly application	Number of children receiving two six monthly applications
<b>ABMU</b>	<b>112</b>	<b>20382</b>	<b>16483</b>	<b>1488</b>	<b>8698</b>	<b>5460</b>
Bridgend	22	3751	3046	264	1305	1302
Neath Port Talbot	39	5842	4556	401	2756	1312
Swansea	51	10789	8881	823	4637	2846
<b>Aneurin Bevan</b>	<b>116</b>	<b>11903</b>	<b>9749</b>	<b>669</b>	<b>2082</b>	<b>6370</b>
Blaenau Gwent	21	2176	1710	87	457	1028
Caerphilly	45	3639	3056	207	558	2039
Monmouth	5	510	388	26	94	228
Newport	22	2767	2132	204	448	1405
Torfaen	23	2811	2463	145	525	1670
<b>Betsi Cadwaladr</b>	<b>33</b>	<b>4487</b>	<b>3243</b>	<b>266</b>	<b>469</b>	<b>2010</b>
Anglesey	8	769	631	62	245	219
Conwy	6	562	332	8	37	227
Denbighshire	5	913	545	53	20	390
Flintshire	9	1600	1287	99	44	950
Gwynedd	1	99	30	2	1	23
Wrexham	4	544	418	42	122	201
<b>Cardiff &amp; Vale</b>	<b>96</b>	<b>8368</b>	<b>6318</b>	<b>358</b>	<b>5366</b>	<b>3422</b>
Cardiff	74	6651	4923	272	4191	2786
Vale of Glamorgan	22	1717	1395	86	1175	636
<b>Cwm Taf</b>	<b>73</b>	<b>6047</b>	<b>4877</b>	<b>330</b>	<b>4314</b>	<b>3109</b>
Merthyr Tydfil	25	2174	1784	111	1604	1130
RCT	48	3873	3093	219	2710	1979
<b>Hywel Dda</b>	<b>48</b>	<b>6893</b>	<b>5130</b>	<b>487</b>	<b>2066</b>	<b>2324</b>
Cardiganshire	32	4266	3238	265	1309	1504
Ceredigion	5	526	368	36	128	192
Pembrokeshire	11	2101	1524	186	629	628
<b>Powys</b>	<b>25</b>	<b>2179</b>	<b>1664</b>	<b>63</b>	<b>856</b>	<b>705</b>
<b>WALES</b>	<b>503</b>	<b>60259</b>	<b>47464</b>	<b>3661</b>	<b>23851</b>	<b>23400</b>

## Staff and resources

- Currently there are a total of 146 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 86.1 wtes working in Designed to Smile (Table 21).

**Table 21: Staff involved in Designed to Smile**

	Total number of personnel working for D2S	Sum of WTE	Personnel recruited during the period
<b>Aneurin Bevan</b>	<b>29</b>	<b>20.0</b>	<b>1</b>
Caerphilly	5	3.8	
Newport	5	2.8	
Pan Gwent	17	11.6	1
Torfaen	2	1.7	
<b>ABMU</b>	<b>22</b>	<b>16.1</b>	<b>5</b>
Bridgend	4	2.4	1
Neath Port Talbot	6	4.4	2
Pan ABMU	4	3.9	
Swansea	8	5.5	2
<b>Betsi Cadwaladr</b>	<b>43</b>	<b>18.5</b>	<b>3</b>
Anglesey	3	1.0	
Conwy	3	1.0	
Denbighshire	4	1.9	
Flintshire	11	4.9	
Gwynedd	12	5.4	2
Wrexham	10	4.4	1
<b>Cardiff &amp; Vale</b>	<b>22</b>	<b>10.8</b>	<b>2</b>
Cardiff & Vale	22	10.8	2
<b>Cwm Taf</b>	<b>23</b>	<b>11.0</b>	<b>2</b>
Cwm Taf	23	11.0	2
<b>Hywel Dda</b>	<b>13</b>	<b>10.9</b>	<b>0</b>
No UA attribution	11	9.3	0
Pembrokeshire	2	1.6	0
<b>Powys</b>	<b>7</b>	<b>3.7</b>	<b>0</b>
<b>WALES</b>	<b>148</b>	<b>81.7</b>	<b>13</b>

*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 13 individuals were recruited to work on Designed to Smile (Table 21). Since the scheme was introduced a total of 181 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, 4 in 2013/14, 13 in 2014/15, 26 in 2015/16: for details consult previous annual monitoring reports).

**Table 22: Resources spent on Designed to Smile between April 2016 – March 2017**

	Staff spend £	Non-staff spend £	Total £
Abertawe Bro Morgannwg	384,459	214,374	598,833
Aneurin Bevan	586,496	163,938	750,434
Betsi Cadwaladr	516,409	301,944	818,353
Cardiff and Vale	372,112	169,088	541,200
Cwm Taf	358,024	69,338	427,362
Hywel Dda	303,416	138,718	442,134
Powys	127,362	19,814	147,176
<b>WALES</b>	<b>2,648,278</b>	<b>1,077,214</b>	<b>3,725,492</b>

*\*allocation and spend data are presented by financial year*

- A total of £3,725,492 was spent on the Designed to Smile programme during 2016/17; representing just over 100% of the £3,717,000, allocated (Tables 22 & 23).
- A LHB breakdown of staff and non-staff spend are presented in Table 22. During this period £2,648,278 was spent on staff costs across Wales, equating to 71% of the total spend. This characteristic ranged from 63% in Betsi Cadwaladr to 87% in Powys.

**Table 23: 2016/17 Allocations versus monies spent by reporting LHB**

	Allocation £	Spend £	Difference £
Abertawe Bro Morgannwg	619,000	598,833	20,167
Aneurin Bevan	732,000	750,434	-18,434
Betsi Cadwaladr	822,000	818,353	3,647
Cardiff and Vale*	970,000	968,562	1,438
Hywel Dda	427,000	427,362	-362
Powys	147,000	147,176	-176
<b>WALES</b>	<b>3,717,000</b>	<b>3,725,492</b>	<b>-8,492</b>

*\*incorporates Cwm Taf*

- A further £1,077,214 was spent on non-staff costs (Table 22); 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*

The inconsistency of the daily toothbrushing required by the programme in some schools. This is monitored closely by the CDS D2S team and addressed appropriately where necessary.

### *Aneurin Bevan*

Some schools remain reluctant to participate fully with the Tooth brushing Programme (some only brushing twice each week). Many more settings have delayed the start of the programme in the new school year – some not starting until after Easter.

It is of some concern that with the refocus of D2S and the renewed emphasis on the Fluoride Varnish Programme (even in schools where tooth brushing has been refused), that some schools which at present brush every day might now decide to pull out of this element of the programme citing time constraints.

### *Betsi Cadwaladr*

North Wales Community Dental 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 4 students will take their exam in September 2017. We will have the results in December. This course provides a steady base for recruitment of new Dental Health educators.

### *Cardiff and Vale and Cwm Taf*

The refocus of D2S has had a large impact on the D2S/MDC teams in Cardiff & Vale and Cwm Taf. The removal of the embedded Fissure Sealant Programme has meant a shift in staff roles and work load. We are extending the Fluoride Varnish Programme to include year 1 children in Cardiff and Vale to bring them in line with Cwm Taf children.

### *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.

Activity is lower when compared with previous years; in RCT the Education Authority changed the age when children started nursery full time & they reduced attendance to half days. Several settings reacted by stopping tooth-brushing as they thought they would not have enough time to brush at both sessions. However, the majority who dropped out during 2016-17 are now brushing again.

### Between September 2016 and July 2017:

Number of Non D2S schools – 49 schools

Number of schools participating – 31 schools

Number of children in participating schools – 2,035 children

Number of children brushing – 1,711 children

Number of home packs distributed – 4,070 home packs

Number of parents/guardians attending talks – 236 parents

### *Hywel Dda*

Hywel Dda has appointed two new members of staff this year to deliver D2S in Ceredigion. The majority of settings have attained their Gold award for their plaques demonstrating that all criteria is achieved and continues to be met as per the How to Guide.



## Conclusions

Significant progress has been made in the development of the Designed to Smile during 2016/17. The supervised tooth brushing programme is now well established across the whole of Wales.

There has been consolidation in the numbers of settings taking part in the supervised tooth brushing element of the programme, ensuring that children from deprived areas are getting fluoride in contact with teeth. This has culminated in 1,460 schools and nurseries taking part across the principality with 98,568 children brushing with an appropriate strength fluoride-containing toothpaste.

During 2016/17 there has been considerable growth in the Fluoride Varnish element of the programme. A total of 503 settings were taking part. Across Wales there were 23,851 children receiving one application with an additional 23,400 having two applications of fluoride varnish.

In terms of resources a total of £3,725,492 was spent on the Designed to Smile programme during 2016/17; representing just over 100% of the monies £3,717,000, allocated by the Welsh Government. During this reporting period an additional 13 individuals were recruited to work on Designed to Smile. Since the scheme was introduced a total of 181 new staff have been recruited to work in the Wales' CDS.

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