

Purpose:	An update on children’s oral health in Portsmouth and the Welsh Government’s ‘Designed to Smile’ Scheme
Prepared for:	Portsmouth Health Overview and Scrutiny Panel (HOSP)
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1.0 Introduction

1.1 Portsmouth HOSP asked the Director of Public Health to provide a report on:

- Children’s oral health promotion work in Portsmouth
- Information on the results of Welsh Government’s national children’s oral health improvement programme - ‘Designed to Smile’.

2.0 An update on children’s oral health in Portsmouth

2.1 Dental epidemiology survey of 5-year-olds (commissioned from Southern Health NHS Trust)

2.1.1 The dental epidemiological programme for Portsmouth is part of the national NHS Dental Epidemiology Programme. The surveys are essential to gather population-level data to allow the analysis of national trends and to inform local planning and delivery of dental and oral health services. Parents are informed if a clinical condition requiring closer investigation is seen during the examination.

2.1.2 A survey of all 5 year old children (reception year) in Portsmouth Primary Schools has just been completed. Results from this survey will not be available until spring 2013. Data is however available on current rates of consent from parents, for their children to participate in the survey. See Appendix One for a map showing the parental consent rates at each school. Parental consent rates ranged from 29% in Cottage Grove Primary School to

100% in Somers Park, Westover, Victory, Gatcombe Park Primary Schools and Copnor Infant School. The overall parental consent rate for Portsmouth was 65%, with 61% of children examined.

- 2.1.3 Participation in the national surveys has been low since the introduction of positive consent in 2006. Children, who do not return a signed consent form, giving permission for them to participate in the survey, cannot be examined. It is extremely resource-intensive getting parents to return signed consent forms. Previous reports (NWPHO, 2009) suggest that consent rates are lower from parents of children living in areas of higher deprivation. Additionally, there is more absenteeism in more deprived areas, increasing the likelihood that these children are not at school on the days of the examinations. A combination of these factors affects participation rates across all children, but is particularly poor for children from more deprived backgrounds. The quality of data is dependent on the participation rate – if participation is low, the data is less useful as a reflection of the state of oral health in that group of children.
- 2.1.4 The data from the 5-year-old survey has been submitted to the national coordinators by the dental public health team. The final report will be made available to a future Portsmouth HOSP meeting.
- 2.1.5 The next survey, starting in September 2012 will sample three-year-olds. Challenges include identifying locations such as pre-school sites where these children attend, ensuring that children from all social class groups are included and getting such young children to cooperate with the examination.

2.2 Oral Health Promotion

2.2.1 Background and evidence base

The evidence base for oral health promotion is summarised in the Department of Health (2009) document “Delivering Better Oral Health”. The evidence base outlines that the key intervention to achieving improvements in oral health, is to increase the use of fluoride. This is being done in Portsmouth through the supervised tooth-brushing schemes to increase the use of fluoride toothpaste and targeted fluoride varnish applications. There is a good evidence base to support the use of fluoride toothpaste and fluoride varnish applications. The challenge with these interventions is to recruit children from across all social class groups to participate. There has been little problem with getting consent for supervised tooth-brushing, however there has been greater difficulty recruiting to the fluoride varnish application programme. As with dental epidemiology surveys, children can only be included if there is a signed consent form from parents allowing their participation.

The evidence base for the success of dietary interventions is much poorer. Interventions to encourage people to change their diet are challenged by complex barriers. The oral health promotion programmes delivered locally do include healthy eating advice as a component to achieve a more holistic approach and to complement other health promotion programmes.

2.2.2 Oral Health Promotion Programme in Nurseries (commissioned from Southern Health Foundation NHS Trust)

Southern Health NHS Foundation Trust is commissioned to provide an oral health promotion programme in nurseries which includes a supervised tooth-brushing programme called ‘Saving Smiles’. “Saving Smiles” is currently being delivered in 29 nursery and pre-schools. As part of this scheme, all children are provided with free toothbrushes and fluoride toothpaste, combined with training on how to brush. For a list of settings that have agreed to participate in the scheme and the parental consent rates, see Table One. The actual number participating in supervised tooth-brushing in the city may be higher as some settings may choose to self-fund.

Table One
List of nurseries and pre-schools that have agreed to participate in the supervised tooth-brushing programme, along with parental consent rates

Name of nursery/ pre-school	Overall parental consent rates (%)
Apple Tree Day Nursery	98%
Brunel-Meredith Pre-School (Isambard Brunel Jnr School)	100%
Brunel-Meredith Pre-School (Meredith Infants School)	100%
Bumble Bees Nursery (Highbury)	92.6%
Busy Bees Day Nursery at Portsmouth	92.6%
Carousel Nursery School	100%
Charles Dickens Infants Nursery	Data not yet available
Cottage Grove Primary School Nursery	100%
Flying Bull Primary School Nursery	100%
Highbury Primary & Daycare Nursery	100%
Honeypot Nursery (Highbury)	100%
Izzies Neighbourhood Nursery	Data not yet available
Jumping Jacks Pre-school (Stamshaw Jnr School)	100%
Little Bumbles	Data not yet available
Little Sunbeams Pre-School (Stamshaw Infants)	100%



Milton Park Infants Pre-School	100%
Paulsgrove Primary Nursery	100%
PAWS Community Nursery	97.5%
Penhale Infants School Nursery	100%
Portsdown Primary School Nursery	100%
Portsea Community Day Nursery	Data not yet available
Rainbow Corner Nursery	98.5%
Somers Park Primary Nursery	100%
St Pauls Pre-School	100%
The Elizabeth Foundation	100%
The Roberts Centre Nursery	100%
Top Tots Day Nursery	100%
Twinkle Star Nursery	Data not yet available
Willow Centre for Children (& Children's Centre)	100%

A programme is also currently being developed for children with special needs in Cliffdale Primary School and Mary Rose School.

Each setting participating in the scheme operates under agreed terms and conditions and all settings have received an annual review visit from Southern Health NHS Foundation Trust. All work is provided in partnership with Portsmouth City Council Pre-School Challenge, delivered by the Health Improvement Development Service, which ensures a holistic programme of oral health promotion and healthy eating advice. Only four of the nurseries/ pre-schools participating in the Saving Smiles programme has not signed up to the Pre-School challenge.

At the point of parental sign-up to the scheme, data is also collected on the consent form of whether children are accessing dental services. This data showed that 65.5% of children on sign-up to the Saving Smiles programme, had attended a dentist in the last 12 months. If a child does not have a dentist, and consent is obtained, contact is made by Southern Health Trust with the parent by telephone or letter, to encourage them to contact the Hampshire Dental Helpline and access a dentist. As at 31st March 2012, 218 families have been contacted and provided with information on the Dental Helpline. Each family is then followed-up to find out if the child has since seen a dentist. A full report on this will be available later in 2012.

2.2.3 Oral Health Promotion Programme in Schools (commissioned from Portsmouth University Dental Academy)

Portsmouth University Dental Academy has been commissioned to offer a range of community oral health promotion services to children in Portsmouth primary schools:

- **Supervised tooth brushing programme.** Provision of free toothbrushes and fluoride toothpaste to all children in Reception Year, combined with supervised training on how to brush.
- **Dental screening.** Annual dental checks to help highlight problems early. The dental checks also indicate whether children are suitable for fluoride varnish. Initially this scheme will be targeted at Reception Year children.
- **Healthy Eating.** Linking of oral health promotion work, with other work going on in schools in relation to diet and nutrition.

The Dental Academy programme being delivered in Portsmouth primary schools is relatively new. The programme is free for children to access and their approach is based on the “Saving Smiles” scheme run by Southern Health Trust.

Nearly all primary schools in Portsmouth have been invited to participate and currently 14 have agreed to be signed-up. The Dental Academy will be contacting the remaining 7 schools this September. The actual number participating in supervised tooth-brushing in the city may be higher as some settings may choose to self-fund. For a list of schools who have agreed to participate in this scheme, along with parental consent rates, see Table Two. The Dental Academy continues to work hard to engage further schools through letters, phone-calls and meetings.

All participating schools have received training and school review visits began in January 2012. A fluoride varnish protocol has been agreed and work is planned to commence on delivery of this element.

Table Two
List of primary schools who have agreed to participate in the supervised tooth-brushing programme, along with parental consent rates

Name of nursery/ pre-school	Overall parental consent rates (%)
Cumberland Infants	100%
Charles Dickens Primary	95%
Copnor Infants	100%
College Park Infants	100%
Cottage Grove Infants	99%
Goldsmith Infants	99%
Highbury Primary	96%
Medina	Data not yet available
Meredith Infants	100%
Milton Park Infants	100%
Moorings Way	95%
Penhale Infants	81%



Somers Park Infants	93%
Stamshaw Infants	93%

Solent Infant primary school withdrew its participation from the Dental Academy scheme in June 2012 due to time contrasts within the schools and other competing timetable priorities. Generally the main reasons for schools not participating in the programme include time constraints on the part of the schools and Head Teachers concerns about the safety of fluoride in toothpaste and fluoride varnish. This view remains among some school Heads, despite information provided by the Academy which shows both its effectiveness and safety. In addition, some schools have not responded to the Dental Academy’s offer of provision of this programme despite repeated contact.

3.0 Results of Welsh Government’s children’s oral health programme

3.1 ‘Designed to Smile’ is an NHS Dental programme funded by the Welsh Government to help children have healthier teeth. This programme was launched in January 2009 in North and South Wales. The main outcome being measured is delivery of the Welsh Governments target that:

By 2020 the dental health of 5 and 12 year olds in the most deprived fifth of the population will improve to that presently found in the middle fifth.

3.2 The core programme, delivered by community dental services in nursery and schools settings, consists of:

- **Supervised tooth brushing programme.** Provision of free toothbrushes and fluoride toothpaste to all children aged 3-5 years, combined with supervised training on how to brush
- **Dental screening.** Annual dental checks to help highlight problems early. The dental checks also indicate whether children are suitable for fissure sealant or fluoride varnish.
- **Healthy Eating.** Linking of oral health promotion work with other work going on in nurseries and schools in relation to diet and nutrition.

3.3 All of the interventions provided to children are free. The components of the Welsh ‘Designed to Smile’ scheme consist of the same mix of interventions provided free to all children in Portsmouth nurseries and schools. These services are provided in some areas of Wales using a mobile van i.e. in more rural areas.

3.4 Whilst the evidence base for the effectiveness of the interventions included in this programme is strong, the delivery is aiming to build on the experience of an existing Fissure Sealant Programme in Wales and other similar initiatives in the UK. A programme of delivering fissure sealants has been ongoing in Wales since 2000 as a



result of a government initiative. Fissure sealants are applied to children aged 6 years as that is when the permanent molars erupt. Permanent molars which are sealed are less likely to decay. The success of the procedure is dependent on how well the sealant is applied. If it is lost, the tooth becomes vulnerable to decay again. There is a trial ongoing in Cardiff University to compare the success of fissure sealants compared to fluoride varnish. The results of that trial will not be available until 2016 and will be able to inform future local programmes.

3.5 The evaluation of the Welsh programme is being conducted by Cardiff University. It is expected that this programme will not show an impact on children's decayed, missing and filled teeth (dmft) rates for a number of years. Interim results of the quantitative evaluation (2009, 2010, 2011) were available along with some process evaluation.

3.5.1 Interim results show that:

- 954 settings participated by the end of March 2011
- Parental consent was high at 94%
- 155,077 home packs were distributed
- Parental participation in group oral health education sessions or one-to-one sessions was 28%
- 16,570 children were assessed for fissure sealants, with 14,075 teeth sealed during 2010/11
- 364 children received at least one application of fluoride varnish
- A total of £3,678,288 was spent on the scheme in 2010/11

3.5.2 Views from schools

- Schools felt that the scheme fitted well with their curriculum.
- One third of schools reported that they missed at least one brushing sessions per week.
- On average brushing took about 11 minutes per session.
- Around 10% of schools (representing over 1,500 children) were unsure about whether they would maintain their involvement the programme, with time constraints being the most common reason.

3.5.3 Views from parents

- Parents supported the scheme and most felt it had been a positive experience for their child. Many reported that their child had shown an improve attitude towards tooth-brushing and had improved their brushing technique.



- A minority of those whose children already brushed regularly at home, did worry that time spent on tooth-brushing might mean that children missed out on other learning opportunities. Those who already brushed regularly at home typically saw the schools sessions as a 'bonus session', rather than a replacement for what they did at home.
- Two of the parents whose schools/ nursery carried out the brushing in the morning did report that they occasionally miss brushing their child's teeth before school.
- Those who brushed less frequently at home did not report any adverse effects on brushing at home and a number reported that the school sessions improved their child's attitude to home brushing.
- Some parents reported that discussions about tooth-brushing had prompted them to make dental appointments for their children or find them a dentist.

APPENDIX ONE

2012 FIVE YEAR OLD SURVEY – Participation Rates

School Name		Number of pupils	Forms returned	Consent form not returned	Parental Response Rate %	Parental consent refused	Total Parental consent supplied	Child Refused	Child absent	Total number examined	School Total Examined
Portsmouth schools											
Cottage Grove Primary	PO5 1HG	45	13	32	29%	0	13	0	0	11	24%
Cumberland Infant School	PO4 9HJ	71	44	27	62%	1	43	0	5	38	54%
Milton Park Infant School	PO4 8EU	52	20	32	38%	0	20	0	3	17	33%
Southsea Infant school	PO5 2SR	65	48	17	74%	2	46	0	2	44	68%
St Johns Cathedral Primary	PO1 1PX	30	27	3	90%	2	25	0	1	24	80%
Meon Infant School	PO4 8NT	66	47	19	71%	3	44	0	0	44	67%
Moorings Way Infant School	PO4 8YJ	45	28	17	62%	2	26	0	6	20	44%
Northern Parade Infant School	PO2 9NJ	87	57	30	66%	6	51	0	3	48	55%
Devonshire Infant School	PO4 0AG	68	41	27	60%	2	39	0	1	38	56%
Meredith Infant School	PO2 7JB	82	33	49	40%	2	31	0	0	31	38%
Solent Infant School	PO6 1DH	102	86	16	84%	2	84	0	7	77	75%
Arundel Court Infant School	PO1 1JE	69	60	9	87%	3	57	0	2	55	80%
College Park Infant School	PO2 0LB	122	62	60	51%	3	59	0	2	55	45%
Copnor Infant School	PO3 5BZ	96	96	0	100%	13	83	1	7	74	77%
Corpus Christi Primary	PO2 9AX	49	47	2	96%	4	43	0	0	43	88%
Court Lane Infant School	PO6 2PP	130	104	26	80%	6	98	0	1	97	75%
Flying Bull Primary School	PO2 7BJ	64	31	33	48%	0	31	0	4	27	42%
Gatcombe Park Primary	PO2 0UR	33	33	0	100%	6	27	0	0	27	82%
Langstone Infant School	PO3 6EY	71	71	5	93%	1	70	0	2	68	89%
Manor infant school	PO1 5QR	66	39	27	59%	3	36	5	1	30	45%
Medina Primary School	PO6 3NH	31	14	17	45%	0	14	0	0	14	45%
Paulsgrove Primary School	PO6 3PL	41	26	15	63%	3	23	0	0	23	56%
St Georges Beneficial C E Primary School	PO1 3BN	31	15	16	48%	0	15	0	0	15	48%
St Judes Church of England Primary School	PO1 2NZ	51	31	20	61%	1	30	0	3	27	53%
Victory Primary School	PO6 4QW	54	54	0	100%	24	30	0	1	23	43%
Westover Primary School	PO3 6NS	44	44	0	100%	3	41	0	1	40	91%
Wimborne Infant School	PO4 8DE	66	58	8	88%	5	53	0	0	53	80%
Goldsmith Infant School	PO4 0DT	52	24	28	46%	2	22	0	0	22	42%
Portsmouth Primary School	PO6 3JL	48	34	14	71%	1	33	0	0	33	69%
Somers Park Primary	PO5 4LS	48	25	23	100%	0	25	0	1	24	50%
Charles Dickens Infant School	PO1 4PN	39	19	20	49%	0	19	2	1	16	41%
St Paul's RC Primary School	PO6 4JD	60	42	18	70%	3	39	0	0	39	65%
Penhale Infant School	PO1 5EF	78	61	17	78%	5	56	1	3	52	67%
Stamshaw Infant School	PO2 8QH	85	63	22	74%	0	63	0	3	60	71%
St Swithun's Roman Catholic P	PO5 2RG	49	33	16	67%	1	32	0	1	31	63%



Southampton, Hampshire
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