



**Isle of Man
Government**

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Supervised Toothbrushing Pilot Programme

September - December 2017

Review Summary

DEPARTMENT OF HEALTH AND SOCIAL CARE

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1. Reasoning for the pilot programme

In 2015, 27.6% of five year olds on the Isle of Man had experienced tooth decay¹; a significant proportion of the population, despite being largely preventable.

Poor oral health can cause difficulties eating, sleeping and socialising², and can negatively impact a child's education and cause families/parents to take time off work when having to miss time off school to attend dentist/hospital appointments³.

The Public Health Directorate is responsible for producing the next Oral Health Strategy, which is to focus upon children aged 0-11 years. Using evidence based practice and recommendations, its aims will include:

- Reduce the prevalence of dental decay, especially in young children
- Reduce inequalities in dental decay prevalence and uptake of services
- Ensure that key preventative messages and actions are delivered.

Evidence shows that children aged up to three years should brush their teeth twice dailyⁱ with fluoridated toothpaste containing no less than 1000 parts per million fluoride (ppmF), whilst children aged three to six years should brush twice dailyⁱⁱ with fluoridated toothpaste containing more than 1000ppmF. For maximum caries control, fluoride toothpaste containing 1350-1500ppmF should be used for all children except those who cannot be prevented from eating toothpaste⁴.

Evidence reviews of effective methods for oral health improvement have been published by Public Health England (PHE)⁵ and the National Institute for Health and Care Excellence (NICE)⁶ for both an individual and population level. PHE concludes that supervised toothbrushing in targeted childhood settings has strong/sufficient evidence of effectiveness, and recommends the intervention. Similarly, the NICE recommendation is to 'consider supervised toothbrushing schemes for nurseries in areas where children are at high risk of poor oral health'. Both recommendations are evidence-based preventative interventions aimed at preventing tooth decay in young children.

Childhood settings such as nurseries are able to provide a supportive, suitable environment for children to participate in a supervised toothbrushing programme. Skills developed at nursery can encourage and support home brushing, increasing the likelihood of sustained impacts⁷.

ⁱ Parent/carer should brush or supervise toothbrushing.

ⁱⁱ Parent/carer should supervise toothbrushing.

Supervised toothbrushing has been successfully established as a component of Scotland's national *Childsmile* programme (since 2011), and Wales' *Designed to Smile* (since 2009) targeted national oral health improvement programme.

The poor level of oral health among young children on the Island, and the strong evidence base behind the worth of supervised toothbrushing programmes led to the decision that supervised toothbrushing was an area of intervention to explore further, in line with the development of the new strategy.

A three month pilot programme was developed and implemented from September 2017 to December 2017 to test the feasibility of running such a programme among young children within a nursery setting. The success of the pilot programme determined whether it would be beneficial and possible to roll out a supervised toothbrushing programme across nurseries Island-wide.

Link to Public Health Business Plan 2017 – 2020:

Table 1: 2017-2020 Business plan priorities

No	Priorities	Timescale
31	Develop a new Oral Health Strategy targeted at the 0-5 age group	2017/2020
32	Devise a pilot Supervised Tooth brushing Project to improve oral health in pre-school and primary school children	March 2018

Objectives:

- Develop and produce a project plan to guide the control and execution of the project
- Facilitate consultation and liaison with key stakeholders
- Provision of daily supervised toothbrushing among the three to five year olds (as a minimum) in select nurseries for a three month period
- Complete an evaluation report upon completion of the three month pilot programme.

2. Reasons for the review

All work undertaken by the Public Health Directorate is kept under review through appropriate audit and evaluation. The review will give an overview of the success of the three month pilot programme, providing guidance for the development of a long-term supervised toothbrushing programme among nurseries Island-wide.

3. Methodology for the review

The evaluation had two components:

- a) **Process evaluation to ascertain whether the Pilot Programme was being delivered in line with the agreed project brief.**
- b) **Outcome evaluation to ascertain whether the Pilot Programme was delivering to the agreed outcomes:**
 - The toothbrushing habits of young children are improved
 - Improved knowledge of oral hygiene among staff, parents and children
 - The feedback and evaluation measure the feasibility of running a supervised toothbrushing project across a large number of early years settings on the Island
 - Full-scale scheme is rolled out across the Island.

4. Findings

a) Process evaluation

i) Selecting participants

Three nursery providers over seven sites (Appendix 1) with pre-existing links with Public Health and the Healthy Weight, Diet and Physical Activity Sub Group (0-5 years) were asked if they would be interested in participating in a pilot programme. All nurseries expressed a keen interest in taking part, and later confirmed participation. (One nursery setting had to unfortunately withdraw from the programme during the early stages due to unforeseen circumstances).

The selection of nursery settings provided a mix of both third sector and privately funded providers from various locations Island-wide; this ensured children from a range of backgrounds and areas of the Island were included, and the programme was therefore not biased toward a specific group of children. All nursery settings included children aged three and above, with three settings opting to also include children under three.

Monday 11th September 2017 was mutually decided as the start date for the programme.

ii) Training

Prior to the commencement of the programme, nursery staff were required to undergo training on the implementation of supervised toothbrushing within a nursery environment.

A Standard Operating Procedure (SOP) (Appendix 2) was developed by the Community Dental Service, Dental Nurse Team Leader and the Public Health, Oral Health Lead for the purpose of this training, and implemented during individual sessions among nursery staff within their settings. Content was guided by the *Childsmile* 'National Standards for Nursery and School Toothbrushing Programmes'⁸.

A video⁹ produced by *Childsmile* was also shown during the training session to enable staff to envisage how the programme works.

The main aim of the training was to ensure nursery staff understood how to implement effective preventative practice, and correct methods of infection prevention and control. Emphasis was also placed on the importance of oral health and toothbrushing in relation to children's overall health.

For members of staff that did not attend the training session, training and information was cascaded by a member of staff who had attended.

A late training session postponed due to unforeseen circumstances meant one nursery setting started the programme a week late.

iii) Parent/Guardian consent

In order for children to participate in the programme, parental/guardian consent was required. Two and a half weeks before the start date, each nursery was provided with consent forms (Appendix 3) and information letters (Appendix 4) to distribute to parents/guardians.

Parent/guardians completed and returned the consent forms ready for the programme start date (Monday 11th September). One nursery however delayed the start date to the following week (Monday 18th September), as there had only been a minimal number of consent forms returned. All other nurseries commenced the programme on the agreed date.

Of the 187 consent forms handed out to parents/guardians, 174 were completed and returned. 170 (98%) of these provided consent, whilst only four refused. Reasons given by parents/guardians for consent refusal varied from deeming it unnecessary to brush at nursery as well as at home, to not wanting their child exposed to too much fluoride.

iv) Monthly feedback

Feedback meetings were held monthly for the duration of the project to provide nursery staff the opportunity to discuss and reflect on their own progress, and to also track the progression of the Pilot. It was reinforced to nursery staff that support was available during the entirety of the project from Public Health, should it be required.

All participating nursery settings completed the three month Pilot, and have committed to implementing supervised toothbrushing as a long-term daily nursery activity.

b) Outcome evaluation

i) Surveys

Four surveys were developed* for the purpose of this project:

- Baseline practitioner survey (Appendix 5)
- Baseline parents survey (Appendix 6)
- Practitioner follow-up survey (Appendix 7)
- Parents follow-up survey (Appendix 8)

* Based on surveys taken with kind permission from PHE document 'Delivering Supervised Toothbrushing for Two, Three and Four Year Olds in Early Years Settings "SMILES 4CHILDREN"':
<https://www.foundationyears.org.uk/files/2016/12/Toothbrushing-Report.pdf>

The surveys were designed with the project outcomes in mind. More specifically, the survey questions set out to measure:

- Perceived behaviour change among participating children before the programme, and after the completion of the three month Pilot
- Toothbrushing knowledge and confidence among nursery practitioners and parents/guardians
- Attitudes towards the continuation of the programme, and whether supervised toothbrushing in nursery settings is considered beneficial

Paper copies of the baseline practitioner surveys were completed before the start of each individual training session, to provide a true representation of practitioners' knowledge before any information/training was given.

Paper copies of the baseline parents surveys were given to each nursery setting to distribute to parents/guardians with an accompanying prepaid return envelope on the first day of the Pilot. In addition to this, the individual nurseries circulated a link to the online version of the surveys via their individual intranet systems. A two week window for completion was given; the deadline date clearly stated on all formats.

Parents follow-up surveys were distributed using the same process as the baseline parents surveys. Practitioner follow-up surveys were sent in paper format to each individual setting, and online via an email link for the staff to complete.

Both baseline and follow-up surveys received low initial response rates, prompting deadline extensions of one week. Nursery staff were instructed to inform parents of the extension, and to reinforce the message on their intranet page. This successfully resulted in a noticeable improvement in response rates among all surveys.

ii) **Additional materials**

Separate information leaflets were produced for parents (Appendix 9) and nursery practitioners (Appendix 10). Practitioner leaflets were given to staff at the end of the training session, whilst parent leaflets were withheld and distributed by the nurseries after the baseline survey closing date to avoid response bias, and to allow for the most honest feedback possible.

Each nursery setting also received information posters (Appendix 11) and a toothbrushing pattern guide sheet (Appendix 12) to display for reference, and a promotional poster (Appendix 13) to make parents/visitors aware of the programme.

iii) **Practitioner survey results**

Number of baseline practitioner surveys completed: 17

Number of practitioner follow-up surveys completed: 21

Practitioner Confidence

95.2% of practitioners stated they are more confident in supervising children's toothbrushing, having participated in the pilot programme.

When asked to rate their confidence in supervising children's toothbrushing on a scale of 1 to 5 (1 being 'not confident at all' and 5 being 'very confident'), 41.2% of practitioners rated themselves as either 'confident' or 'very confident' before the pilot commenced. This percentage increased more than twofold to 90.5% after the completion of the three month pilot programme.

When asked to rate how confident they are that they know the correct technique in cleaning the children's teeth, 29.4% of practitioners rated themselves as 'confident' before the pilot commenced. After the completion of the three month pilot this percentage increased, with 76.2% of practitioners rating themselves as either 'confident' or 'very confident'.

Practitioner Knowledge

95.2% of practitioners think they are more knowledgeable about toothbrushing, having participated in the supervised toothbrushing pilot programme.

Practitioners were asked corresponding questions in both the baseline and follow-up surveys to test their knowledge before and after participating in the pilot. Figure 1 shows the percentage of practitioners who selected the correct answers for each question before the pilot commenced, and after its completion.

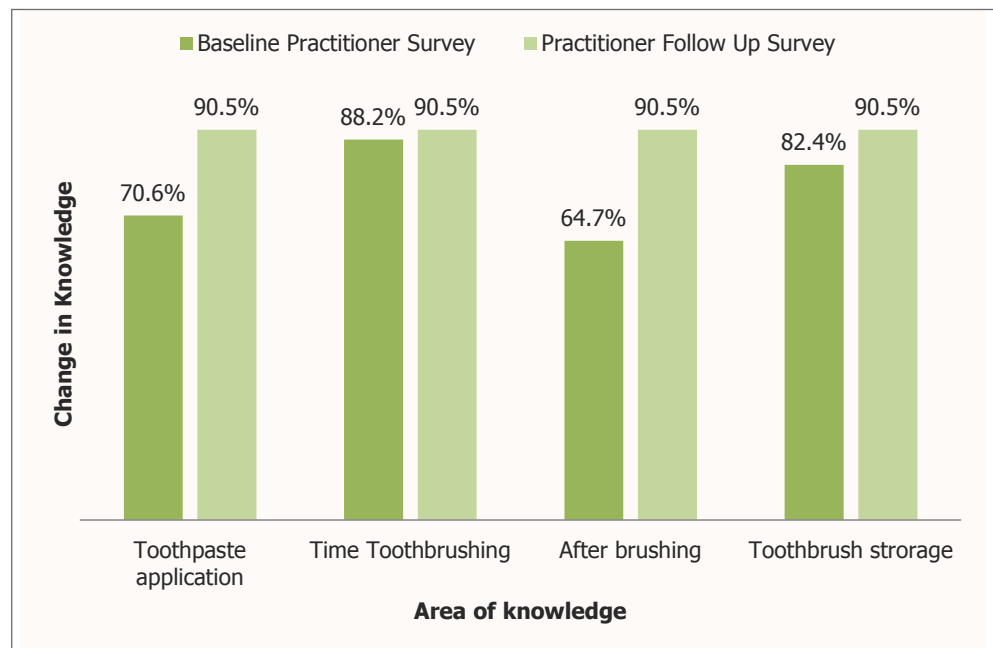


Figure 1: Change in practitioner knowledge from the beginning to the end of the programme

Toothpaste application: Practitioners were asked whether they think toothpaste should be applied to the toothbrush when it is 'wet' or 'dry'. 'I don't know' was also an option. The correct answer to this question is **'dry'**.

Time toothbrushing: Practitioners were asked how long children should brush their teeth for, and given four options: '1 minute', '2 minutes', '3 minutes' or '4 minutes'. The correct answer to this question is **'2 minutes'**.

After brushing: Practitioners were asked whether they think children should 'rinse with water' or 'spit out toothpaste and not rinse' after brushing. 'I don't know' was also an option. The correct answer to this question is **'spit out toothpaste and not rinse'**.

Toothbrush storage: Practitioners were asked which sentence they thought best described how toothbrushes should be stored, and given six different options, the correct option being **'toothbrush stored standing up with a ventilated cover'**.

Practitioners were asked how much fluoride should be in children's toothpaste, according to their age. The percentage of correct answers from both the baseline and follow-up results are shown in Figure 2.

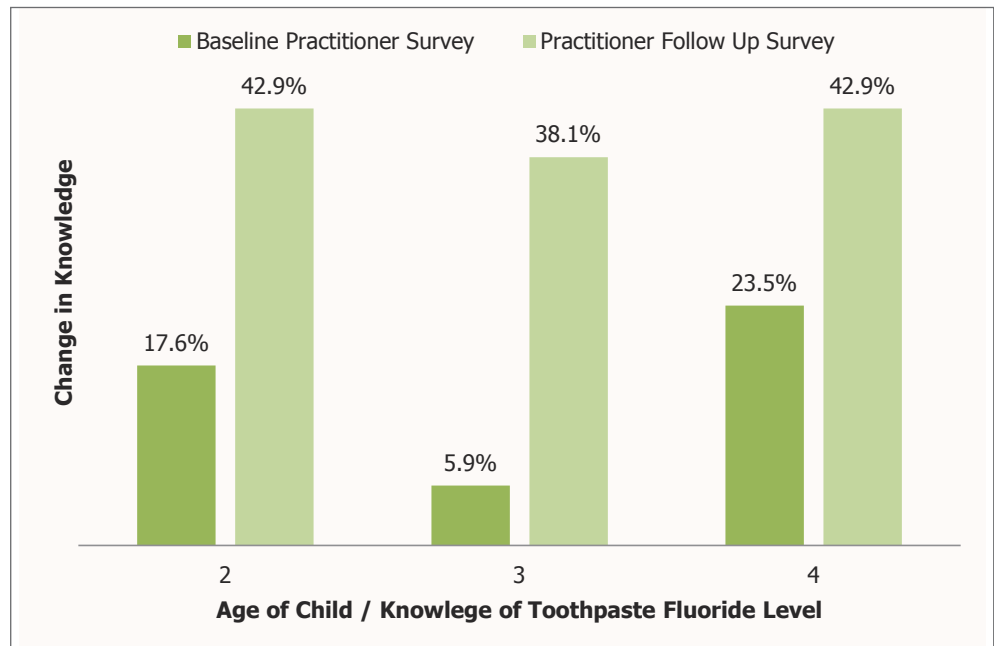


Figure 2: Difference in practitioner knowledge about toothpaste fluoride level according to age from the beginning to the end of the programme

They were also asked to state the appropriate amount of toothpaste according to the children's age. The percentage of correct answers from both the baseline and follow-up results are shown in Figure 3.

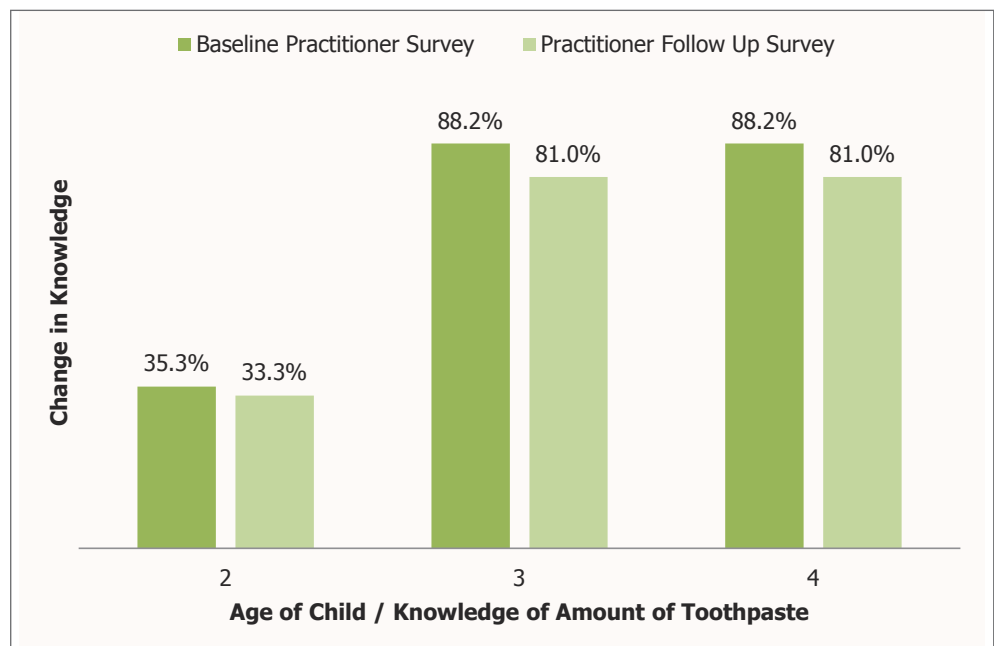


Figure 3: Difference in practitioner knowledge of toothpaste amount according to age

Practicality

Over half (61.9%) of practitioners selected 'easy' or 'very easy' when asked how easy it was to incorporate toothbrushing into the daily routine, as shown in Figure 4 below.

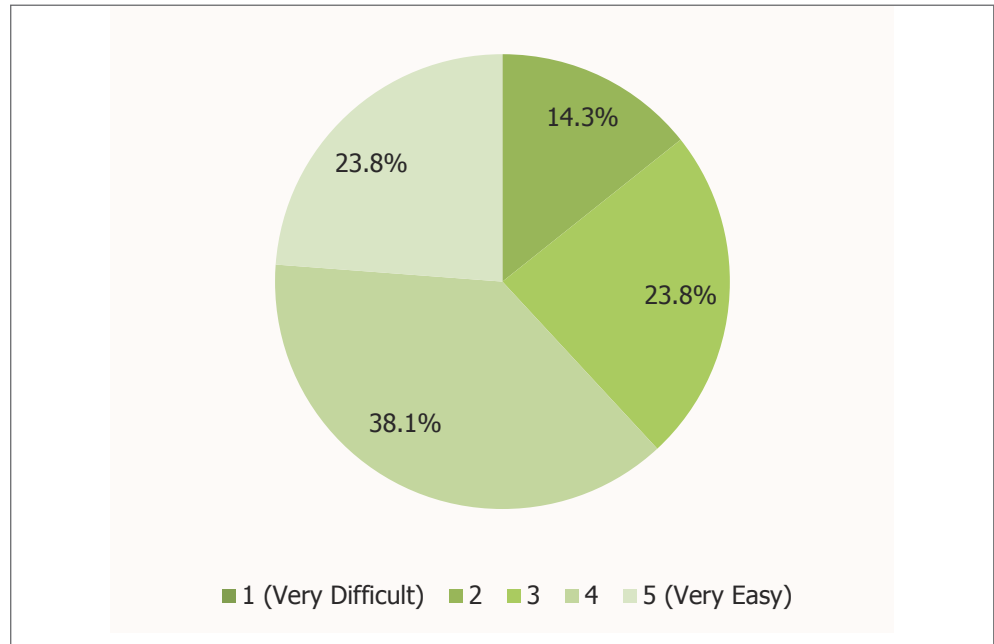


Figure 4: Ease of incorporating toothbrushing into the daily routine

90.5% of practitioners felt they did not need further guidance for toothbrushing following the pilot.

Practitioners were asked if they would agree that supervised toothbrushing within the nursery is beneficial. 81.0% either agreed or strongly agreed that it is beneficial. Full results are shown in Figure 5.

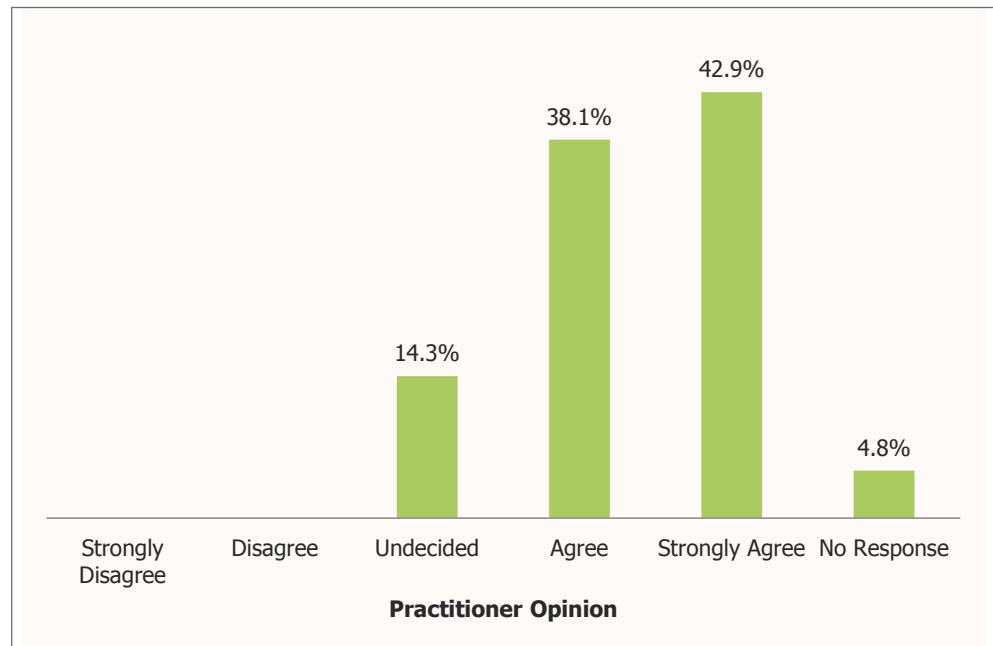


Figure 5: Practitioner opinion on whether supervised toothbrushing within the nursery setting is beneficial

iv) Parent Survey Results

Number of baseline parents surveys completed: 42

Number of parents follow-up surveys completed: 34

Children's Behaviour/Attitude

Parents were asked whether their child was reluctant to brush their teeth before the pilot programme (Figure 6), and then whether the child was reluctant to brush their teeth following the pilot (Figure 7).

11.8% of parents said 'yes' their child was reluctant to brush their teeth before the pilot programme; 75.0% of those parents then reported their child as being less reluctant after the pilot.

41.2% said their child was 'sometimes' reluctant to brush their teeth before the pilot; 78.6% of those parents reported their child being either less reluctant or no longer reluctant, and 21.4% reported no change after the pilot.

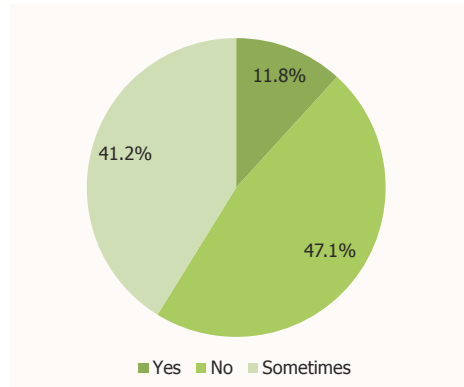


Figure 6: Child's reluctance to brush teeth before pilot programme

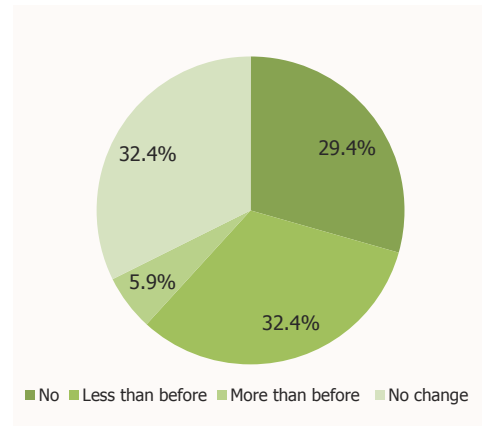


Figure 7: Child's reluctance to brush teeth after pilot programme

Parents were also asked whether their child found toothbrushing difficult before (Figure 8), and after (Figure 9) the pilot programme.

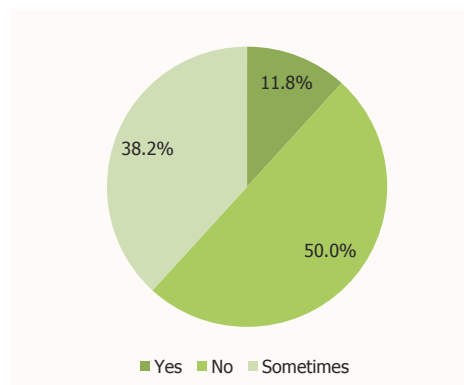


Figure 8: Children who found toothbrushing difficult before pilot programme

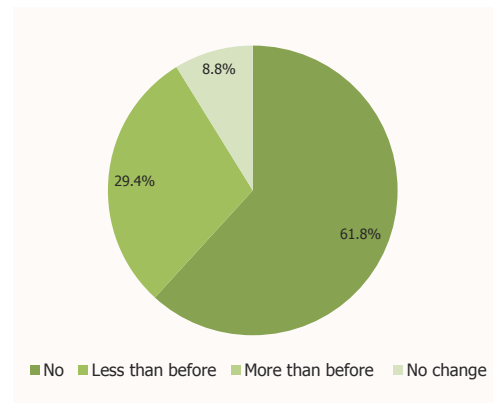


Figure 9: Children who found toothbrushing difficult after pilot programme

All parents who said 'yes' (11.8%) their child found toothbrushing difficult before the pilot programme reported their child finding toothbrushing either not difficult or less difficult after the pilot programme.

All parents who said their child 'sometimes' (38.2%) finds toothbrushing difficult before the pilot programme reported their child finding toothbrushing either not difficult or less difficult after the pilot programme.

Parents' Knowledge

Parents were asked whether they think they are more knowledgeable about toothbrushing because of the pilot programme; 41.2% said yes, whilst 58.8% said no.

Similarly to practitioners, parents were asked corresponding questions in both the baseline and follow-up surveys to test their knowledge before and after participating in the pilot. Figure 10 shows the percentage of parents who selected the correct answers for each question before the pilot commenced, and after its completion.

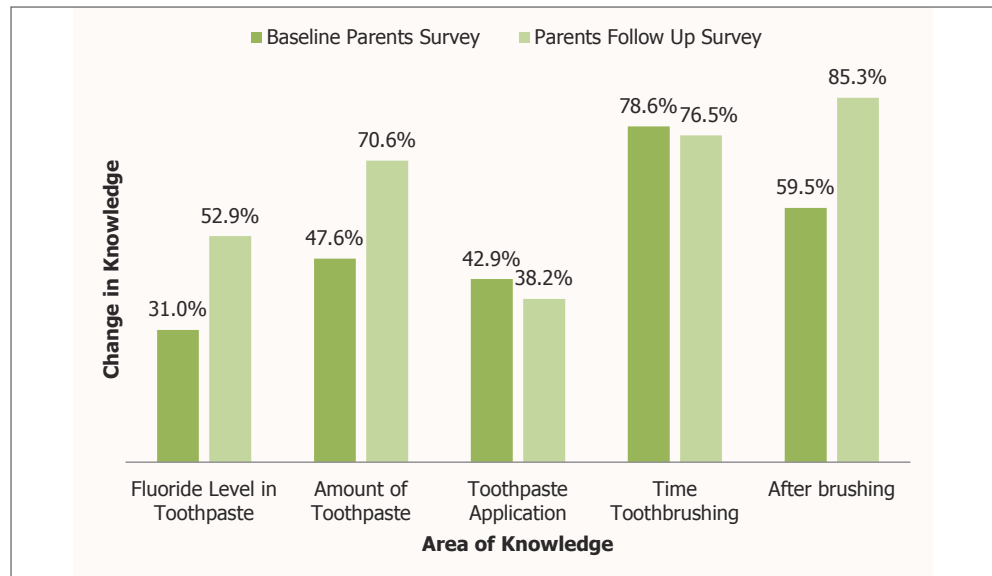


Figure 10: Change in parent knowledge from the beginning to the end of the programme

Fluoride level in toothpaste: Parents were asked to state the appropriate amount of fluoride that should be in their child's toothpaste, based on their age.

Amount of toothpaste: Parents were asked to state the appropriate amount of toothpaste to use for their child's age group.

Toothpaste application: Parents were asked whether they think toothpaste should be applied to the toothbrush when it is 'wet' or 'dry'. 'I don't know' was also an option. The correct answer to this question is '**dry**'.

Time toothbrushing: Parents were asked how long children should brush their teeth for, and given four options: '1 minute', '2 minutes', '3 minutes' or '4 minutes'. The correct answer to this question is '**2 minutes**'.

After brushing: Parents were asked whether they think children should 'rinse with water' or 'spit out toothpaste and not rinse' after brushing. 'I don't know' was also an option. The correct answer to this question is '**spit out toothpaste and not rinse**'.

Parent's Attitudes

76.5% of parents stated their child has seen a dentist in the last 12 months.

Figure 11 shows how likely parents are to now take their child to see a dentist as a result of the pilot programme.

79.4% of parents felt they did not require further guidance for toothbrushing.

88.2% of parents would like to see supervised toothbrushing continue as a nursery activity, as seen in Figure 12 below.

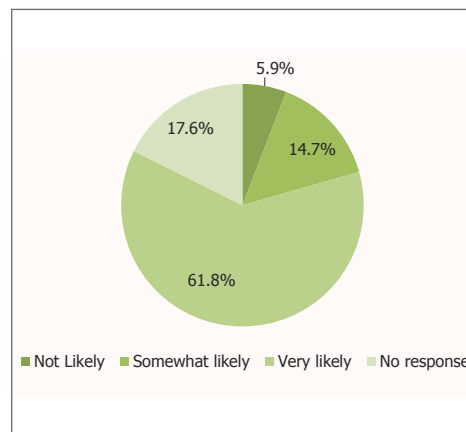


Figure 11: Likelihood of parents taking their child to see a dentist directly as a result of the programme

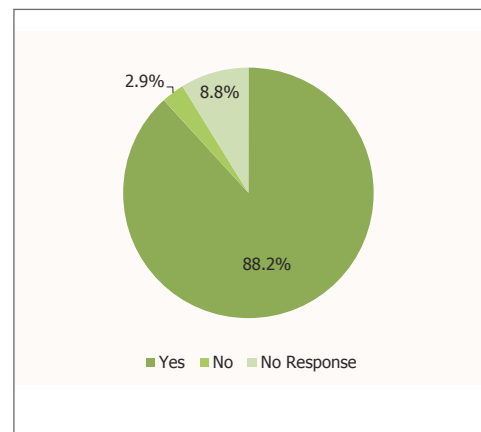


Figure 12: Percentage of parents who would like supervised toothbrushing to continue as a nursery activity

v) **Costs**

Toothbrushing supplies (toothbrushes, racks, rack covers and toothpaste) were ordered from *Childsmile's* contracted supplier, *AMS International*. Each nursery setting was equipped with adequate supplies to cover the number of participating children, and included spare toothbrushes.

The total expenditure for the three month pilot was £1,581.55. A breakdown of the full costs is presented in Appendix 14. All resources and materials required for this programme were funded through the Public Health Directorate, excluding paper towels, which were funded and provided by the individual nurseries. Toothbrushing reward stickers and plastic plates were funded for the Pilot, however would not be funded in a future programme, as they are not a mandatory requirement.

The delivery of training came within the existing roles of the Community Dental Service, Dental Nurse Team Leader, and the Public Health, Oral Health Lead, and therefore no additional cost was incurred to train nursery staff who took part in this project.

The annual costs of delivering the supervised toothbrushing programme are broken down and detailed in Appendix 15. This is based on a full day care setting with 30 children operating 51 weeks per year. Cost per setting totals to £96.80, whilst cost per child totals to £3.23 per year.

This breakdown shows that the cost of running a supervised toothbrushing programme is not excessive. Furthermore, should the programme work effectively, and improve the oral health of young children, it could potentially lower expenditure and costs in other areas of oral healthcare.

5. Discussion

a) Monthly Feedback Reporting

i) Dry/Wet Toothbrushing Setting

In accordance with the *Childsmile* Standards⁸, nurseries were given the option as to whether the children would brush their teeth in a dry setting or at a sink. As toothbrushing requires no water, it can easily be carried out in a dry setting such as a classroom; when toothbrushing is completed, children just have to spit excess toothpaste into a disposable tissue, disposable paper towel or disposable cup rather than into a sink.

Toothbrushing in a dry area was the more favourable approach in this pilot, with four of the six nurseries choosing this over brushing at a sink.

Staff using the dry setting preferred that setting as it was less time-consuming, the children could brush together in a group, and it took away the possibility of unintended wet brushing (wetting toothbrush before applying toothpaste / rinsing mouth with water after brushing).

Three of the four nurseries using the dry setting found brushing whilst sitting around a table to be the method that worked best for them, whilst the fourth found brushing whilst sitting on the carpet in a group worked best.

The other nurseries chose for the toothbrushing to take place at the sinks in the children's bathroom. Staff using this setting preferred to do so because it is the same setting in which children brush their teeth at home, which they felt provided consistency.

One nursery described there as being so much going on at the table and over lunchtime, that brushing in the bathroom provides a break up of setting, and makes the process easier. It has also become part of their bathroom routine; children go to the toilet, wash their hands, and then brush their teeth. Younger children that are unable to walk properly sit on a small step whilst brushing their teeth.

Out of habit, some of the children brushing in the wet setting would turn on the taps and rinse their mouth out with water. Staff were reminded to reinforce the 'spit don't rinse' message to children. Rinsing the toothpaste away with water washes away the concentrated fluoride in the toothpaste left on your teeth¹⁰, and is therefore important to ensure this does not happen. The survey results show that after the pilot, 90.5% of nursery staff now know that children should spit and not rinse.

ii) Participating Children

Three to five years old was stated as the minimum age for participation in the programme, however nurseries were able to include younger children if they desired. Age inclusion was dependent on various factors among the different settings. The two larger nurseries chose to stick with three years old as the minimum age limit as it was their first time trialling toothbrushing, and felt it would have been difficult to roll it out among all children at the same time. Other nurseries chose to also include two year olds as it suited their daily routine to do so, and one nursery chose to include all children as they did not want the younger ones to feel they were being left out, and it suited their routine for all children to participate.

The Pilot Group concurred prior to the programme start date that as long as a child had the capability to safely brush their own teeth whilst being supervised by nursery staff, they were eligible to participate in the scheme, regardless of their age.

iii) Incorporating Toothbrushing into the Daily Routine

For some, incorporating supervised toothbrushing into the daily routine proved a little challenging during the first week of the programme. This had been presented by nursery staff as a concern prior to the pilot starting, however once incorporated, it quickly became an established part of the day, with various members of staff commenting on how easy it actually was to build into their day.

One setting reported two months into the programme that due to time constraints and other commitments, toothbrushing was not yet a daily occurrence, however the staff confirmed they would pursue the programme, and they are hopeful that it will become a daily activity.

Generally, staff reported that children did not take long to adapt to the new routine. One nursery setting reported that after only one month, children started to ask staff if they were brushing their teeth after lunch, whilst another setting fed back that children would excitedly remind them when it was toothbrushing time, signifying recognition of toothbrushing being a normal part of the nursery day.

In the majority of nursery settings, toothbrushing took place either after snack time or after lunch, as this was found to be the most suitable time to fit in into the daily routine.

iv) Toothbrushing Process

One nursery setting found some children had difficulty matching their toothbrush to their rack if the colours didn't correspond. It was discussed at the feedback meeting as to whether trialling a system where the colour of the brushes, as well as the symbols, matched those of the rack, however this was decided against as it would not provide a fair evaluation and it was mutually decided that all settings use the same method. To counteract this issue, staff members assisted children when collecting and returning their toothbrush to the rack.

At the start of the programme, some children (the younger children in particular) did struggle with aspects of the programme such as turning the toothbrush to brush different surfaces of the teeth, and spitting out the toothpaste. Despite these initial struggles, as time went on this improved, and the children found the process a lot easier.

Some children would also get distracted at the start of the programme, using their toothbrushes as 'aeroplanes' or 'swords' and dropping them, meaning staff would have to regularly replace the brushes. Again, this was more common in the younger children, so staff would ensure they were sat in between the older children rather than next to the other younger children when brushing, which improved the issue.

Aside from these issues, the general consensus was that the children enjoyed the programme, and despite initial concerns from staff that they would become bored, this was not the case.

To time the two minute bracket required for toothbrushing, different settings used different methods. These methods included the *Aquafresh* mobile phone app, a two minute toothbrushing song on *YouTube*, staff singing a toothbrushing song to the Mulberry Bush tune, and simply counting out the two minutes. It is recommended that some form of timer is used to ensure the two minute limit is being met, and children are not brushing their teeth for too little or too long.

It was highlighted by a member of nursery staff that a small number of parents possibly saw the programme as an excuse for them to not have to brush their child's teeth at home as 'they would be doing it at nursery'. It is extremely important that the toothbrushing that takes place at nursery is not seen as a replacement for toothbrushing at home (as noted in the parent information leaflet (Appendix 9)). Children should brush their teeth just before bed, and at least one other time during the day; toothbrushing at nursery is an addition to this.

b) Discussion of Survey Results

i) Practitioner Survey Results

An overall improvement in both practitioners' confidence and knowledge was seen following the three month pilot programme. This is reflected in the responses on how they feel personally about their confidence and knowledge, and the higher percentage of correct answers given in response to the multiple choice questions.

95.2% of practitioners are more confident in supervising children's toothbrushing, and think they are more knowledgeable about toothbrushing following the pilot.

90.5% of practitioners now know that:

- toothpaste should be applied to a dry toothbrush
- children should brush their teeth for two minutes
- children should spit out toothpaste and not rinse after brushing
- toothbrushes should be stored standing up with a ventilated cover (Figure 1).

Practitioners' knowledge did however falter when asked to state the appropriate amount of toothpaste according to the children's age. The percentage of correct answers was particularly low in regard to two year olds in both the baseline and the follow-up survey (Figure 3). Information on

the correct amount of toothpaste was provided at the training session, in the *Childsmile* Standards (of which each nursery received hard copies and online links), and in the information poster. The results indicate this is an area of importance that must be given more focus in future.

Despite an improvement in knowledge on toothpaste fluoride levels according to age, still less than half of practitioners answered these questions correctly in the follow-up survey (Figure 2). 1450 ppm fluoride toothpaste was provided by Public Health for use of all children in the programme. Not only is this the same approach used by *Childsmile*, higher strength fluoride toothpaste is recommended on the Isle of Man due to the lack of fluoride in the water supply. As such, fluoride content was not something that had to be considered by practitioners on a daily basis, and may explain the low percentage of correct answers.

90.5% of practitioners felt they did not need further guidance for toothbrushing following the pilot, however to ensure knowledge and practice is kept up to standard, each nursery continuing with supervised toothbrushing will receive a monitoring visit at least once per annum. Should there be reason for concern, or if standards are not being met, remedial action must be described, and a follow-up visit arranged.

81.0% of practitioners either agreed or strongly agreed that supervised toothbrushing within the nursery setting is beneficial, whilst none disagreed. This is extremely positive, and supports the decision the nurseries have made to continue supervised toothbrushing as a permanent daily activity.

ii) **Parent Survey Results**

Generally, the answers given by parents indicated that participating in the pilot programme had encouraged children to be less reluctant to brush their teeth, and had also helped them to find the process of toothbrushing less difficult.

Some of the qualitative answers provided by parents after the programme provided more detail as to how:

“This scheme has been great for my 4 year (sic) and I have seen a marked difference in his ability to properly brush his teeth – impactful and I would like to see it continue.”

“My son has enjoyed brushing his teeth with his peers, loved that he had his own brush with a picture on. He can now tell us how to brush his teeth! We’ve always

been toothbrushing but encountered problems with his teeth so this extra time really helps us. He listens more to authority figures on how to do things.”

“I think it’s a great idea that they brush there (sic) teeth at nursery as it gets them into a routine to do it and it’s just become natural at home, rather than a chore.”

Over 50 percent (58.8%) of parents do not think they are more knowledgeable about toothbrushing because of the pilot programme. This was explained partly in some of the comments provided:

“Parents didn’t get much information about the way children should brush their teeth. It was all done at pre-school. So I feel some of the questions are not applicable.”

“Scheme is excellent and I love the fact that my son now cleans his teeth during the day too. But wasn’t aware of any parent education aspects of the scheme. We signed a form to say he could do to it and then had a questionnaire at the start and the end. Some of the questions above suggest that parents have been given extra information. The above said, we get plenty of advice from our dentist.”

Information leaflets (Appendix 9) were produced specifically for parents, of which each nursery setting received a sufficient number to distribute. It is evident some parents were not aware of the leaflet/information, and therefore information materials/distribution is a factor which must be considered in future projects to ensure the target group does receive the information intended for them.

Despite many parents not thinking they are more knowledgeable about toothbrushing, knowledge of toothpaste fluoride levels according to age, amount of toothpaste according to age, and knowledge that children should spit out toothpaste and not rinse after brushing all improved following the pilot programme.

Knowledge on correct toothpaste application, and the how long children should brush their teeth for did however decrease (albeit minimally), and would be on that account, two areas of particular focus in future information materials aimed at parents.

Over half (61.8%) of parents are very likely to take their child to see a dentist as a result of the pilot programme. Eight parents of the 34 that completed the survey commented that they would have taken their child to the dentist anyway.

Of the 23.5% of parents whose child has not seen a dentist in the last 12 months, 75% are now very likely to take their child to see a dentist.

It is recommended that children should be taken to visit the dentist when their first milk teeth appear to help prevent decay and identify any oral health problems at an early stage. Visiting the dentist from a young age also familiarises the child with the dentist and the dental environment¹¹.

The response from parents in regard to this therefore reflects very positively.

Although 79.4% of parents felt they did not require further guidance for toothbrushing, the knowledge demonstrated in Figure 10 suggests further guidance is required, particularly for certain areas such as toothpaste application, which only 38.2% of parents answered correctly after the completion of the pilot. It is important for parents to be aware that toothpaste should be applied to a dry toothbrush so as to not dilute the fluoride content*. Despite a high percentage (85.3%) of parents knowing that toothpaste should be spat out and not rinsed away with water, this process would be undermined if the toothpaste was applied to a wet toothbrush.

It is also important for parents to know the correct amount of fluoride toothpaste for their child's age (smear or pea-sized) to reduce the risk of mild fluorosis, and to reinforce good oral health¹².

The majority of parents (88.2%) stated that they would like to see supervised toothbrushing continue as a nursery activity:

“I would like it to continue but only if it is not too taxing for the nursery staff. We brush twice daily but realise not everyone does so it could be very useful for these children.”

“It should continue at school as well.”

“Fantastic idea, think it should be compulsory.”

* Fluoride is a mineral that can help prevent tooth decay. It is added to many brands of toothpaste, and to the water supply in some areas through a process called fluoridation¹³. As Manx water is not fluoridated, it is important for parents to be aware of and choose a toothpaste with the correct amount of fluoride for their child's age group to ensure their teeth are getting sufficient protection. Toothpaste containing 1350-1500ppm fluoride is the most effective.

6. Conclusions and Recommendations

a) Conclusions

Were the toothbrushing habits of young children improved?

Results indicate that generally, children find toothbrushing less difficult, and there has been an improvement in children's reluctance to brush their teeth. In addition to this, practitioners' toothbrushing knowledge was of a high standard, which would have been passed down to the children, in turn helping to develop their toothbrushing habits.

Was oral health knowledge among staff, parents and children improved?

There was clear improvement in practitioners' oral health knowledge, despite there being a few areas that could still be improved further. Similarly, there was an improvement in parents' knowledge, although not as significant as that of the practitioners. It is difficult at this stage to know whether oral health knowledge amongst children has improved, however as previously discussed, there has been an improvement in toothbrushing ability.

Would it be feasible to run a supervised toothbrushing project across a large number of early years settings on the Island?

Has a full-scale scheme been rolled out across the Island?

The low cost and positivity resulting from the pilot programme indicates that it would be feasible to roll out the scheme across the Island, and following the evaluation, it has been agreed that supervised toothbrushing will be offered to all nurseries on the Isle of Man as a recognised and branded programme 'Smile of Mann'.

The Isle of Man Government Public Health Directorate has been allocated £100,000 of the Soft Drinks Industry Levy revenue for programmes aimed at reducing childhood obesity and tooth decay. Of this total amount, a proportion has been allocated specifically to lead and fund a larger scale supervised toothbrushing programme, which links to the following priority identified in the updated Public Health 2018-2021 Business Plan:

33/17 Launch a supervised toothbrushing programme Island-wide to young children in Nursery Settings.

Since the completion of the pilot, and the commitment to rolling out 'Smile of Mann', Public Health England has released updated statistics on the oral health of five year olds on the Isle of Man. The 2017 statistics show that 72.2% of five year olds on the Isle of Man are free from obvious dental decay*, compared to 72.4% in 2015¹; a decrease of 0.2%. This highlights that children's oral health remains a public health priority.

Overall, it is evident that the pilot programme achieved the main outcomes, with the evaluation suggesting some areas for improvement that can be incorporated into future work.

b) Recommendations

1. Distribute consent forms to parents approximately three to four weeks before the start date of the new programme.
2. Consider other initial approaches for future survey distribution.
3. Consider more effective means of reinforcing specific information to nursery practitioners e.g. appropriate amount of toothpaste according to child's age
4. Consider more effective methods of engaging parents/carers, and means of reinforcing specific information to them e.g. children under three should use a smear of toothpaste, and children between three and six should use a pea-sized amount of toothpaste.
5. Nursery businesses to fund non-essential materials for the new programme e.g. stickers.
6. Consider an intervention to ensure children are not using any water when brushing in the bathroom setting.
7. Individual nursery setting can choose the minimum age for children participating in the new programme, providing they have the capability to safely brush their own teeth whilst being supervised by nursery staff.
8. Nursery staff may assist children collecting / returning their toothbrush if it is causing confusion or difficulty.
9. Nursery staff should use some form of timer to ensure the two minute toothbrushing time limit is being met.
10. Children on the Isle of Man should use 1450 ppm fluoride toothpaste.

* *Source: Public Health England, 5 year 2017 Results for Isle of Man*

List of participating nurseries

Name of Nursery	Location	
Hopes & Dreams		
Hopes & Dreams Nursery	East	Douglas
Parklands Nursery	North	Ramsey
The Buchan Nursery	South	Castletown
The Buzz Pre-School	East	Onchan
Crossroads Care		
Crossroads Nursery	East	Douglas
The Children's Centre		
The Children's Centre Nursery	East	Douglas
The Children's Centre Laxey Pavilion Nursery*	East	Laxey

* Withdrew in the early stages

Supervised Toothbrushing Pilot Standard Operating Procedure

Supplies required:

- Toothbrushes
- Toothbrush rack
- Toothbrush rack cover
- Toothpaste
- Paper towels / plate
- Baseline practitioner survey
- Stickers
- Copies of the *Childsmile* Standards

1. Practitioners to complete baseline practitioner survey.
2. Explanation as to why we are running the supervised toothbrushing programme. (Go through parent information letter.)
3. Explain that positive consent is required for children to be able to participate in the programme.
4. Show the '*Childsmile* National Toothbrushing Programme' YouTube video.
5. Explain what fluoride is, and why it is important to children's oral health.
6. Explain why toothpaste should be applied to a dry brush, and spat out without rinsing.
7. Explain the differences between brushing in a bathroom setting, and brushing in a dry setting. (Dry area recommended as all children can brush together at the same time.)
8. Advice on infection control, using the 'National Standards for Nursery and School Toothbrushing Programmes'. Ensure storage, hand washing, infection control and cross contamination is all covered.
9. Demonstrate toothpaste amounts – smear and pea-sized.
10. Inform of what other supporting documentation there is e.g. leaflets/wall posters.
11. Explain toothbrushing can take place at any time during the day, as long as it is fitted in and every child has the opportunity to do it (even if they are only in during a morning or afternoon).
12. Explain that all tooth surfaces must be brushed for at least 20 seconds each. (The children should be able to feel the brushes on their gums.)
13. Explain that there will be spare toothbrushes provided, and Public Health will hold spares at Cronk Coar.
14. Ask if anyone has further questions.

Parent/Guardian Consent Form

Supervised Toothbrushing Pilot Programme Consent Form

The supervised toothbrushing pilot programme is a three month programme in which nurseries facilitate toothbrushing for the children into their daily routine. Toothbrushing will be supervised by trained nursery staff, and the process will comply with the Scottish National Standards for Toothbrushing. The programme is an addition to the twice-daily brushing that takes place at home.

If you have any questions, please contact a member of nursery staff, or a member of the public health team on 01624 682325.

Child's full name *(first name, middle name and surname)*:

Date of Birth:

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Parent / Carer daytime contact no:

Consent for Participation In the Supervised Toothbrushing Programme

I want/do not want* my child to participate in the Supervised Toothbrushing Programme.
*(*Please delete as appropriate)*

Parent/Carer Name:

Signature:

Date:

If you decide you **DO NOT WANT** your child to participate in the programme, it would be helpful if you would give the reasons for this in the box below *(and return this form to a member of the nursery staff)*.

I/We have chosen for my child to not participate in the programme because:
(Please tell us why you would prefer your child not to participate)

Thank you.

Please return this completed form to your child's nursery provider

Personal data that you provide to us will be processed in accordance with the Data Protection Act 2002. Where it is lawful to do so, in certain circumstances, we may share and transfer personal data that you provide to us to other departments, boards and offices within the Isle of Man Government. If you have any queries about what personal data is held about you or what processing of data is being undertaken in relation to this service then please contact your child's nursery provider.

The information in this document can be provided in large print or on audio tape on request.

The information contained in this Consent Form has been adapted with kind permission from NHS Scotland Childsmile Toothbrushing programme. Further information can be found at <http://www.child-smile.org.uk/>

For more information visit
www.gov.im/oralhealth



Department of Health and Social Care
Public Health Directorate
Cronk Coar, Noble's Hospital, Strang, Douglas, Isle of Man IM4 4RJ
Telephone: 01624 642639 | Email: publichealth.dh@gov.im
www.gov.im/publichealth

REF: OH0108/17

Parent/Guardian Information Letter

Public Health Directorate
Department of Health and Social Care
Cronk Coar,
Nobles Hospital,
Strang, Douglas,
Isle of Man, IM4 4RJ

Telephone: (01624) 642639
Website: www.gov.im/publichealth
Email: publichealth.dh@gov.im

August 2017

Dear Parent or Guardian,

Supervised Toothbrushing Pilot Programme

Around a quarter of five year olds on the Isle of Man have tooth decay. It affects children's ability to sleep, eat, speak, play and socialise with other children. Tooth decay is preventable and we are keen to reduce rates here. Your child's nursery is taking part in a supervised toothbrushing pilot programme, led by the Isle of Man Government Public Health Directorate. The pilot programme will start in September 2017. This is based upon Scotland's *Childsmile* programme; a national programme designed to improve the oral health of children in Scotland. Research tells us that brushing at least twice a day with fluoride toothpaste can help prevent tooth decay. To support this, we are trialling a daily supervised toothbrushing programme to take place in the nursery setting, in addition to brushing at home.

What does the toothbrushing programme involve?

- Children are given their own toothbrush (which will be kept at the nursery) showing a symbol which matches a corresponding symbol on a storage system and wall chart.
- Every day they will be supervised brushing their teeth with their own toothbrush and fluoride toothpaste supplied by the programme.
- All nurseries participating in the toothbrushing programme will follow the Scottish National Standards for Toothbrushing.
- The toothbrushing programme will be monitored to ensure a good level of service is provided.

For more detailed information about the toothbrushing programme and its standards, visit:
www.child-smile.org

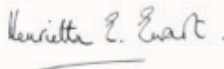
Supervised toothbrushing

Children will be supervised in the programme because young children need help with toothbrushing on a daily basis. At home, children should be encouraged to toothbrush themselves, but they will still need help and should be supervised with daily toothbrushing. This will help to ensure that they brush well and do not swallow toothpaste.

What do I need to do next?


Child participation is dependent upon parental consent. To confirm you are happy for your child to participate in this programme, please complete and return the attached parental consent form, and hand it back to a member of Nursery staff. If you have any questions please talk to your Nursery or contact Eleanor at Public Health on 682325.

Yours sincerely



Dr H Ewart
Director of Public Health

Baseline Practitioner Survey



Isle of Man
Government
Accident Free Health

**Isle of Man 2017
Supervised Toothbrushing Pilot Scheme**

Name of Nursery: _____

Thank you for taking the time to complete this questionnaire.

The Public Health Directorate is undertaking a three month Supervised Toothbrushing Pilot Scheme, which aims to collect data to inform and drive future oral health initiatives. This survey is based upon the Public Health England initiative - Delivering Supervised Toothbrushing for Two, Three and Four Year Olds in Early Years Settings "SMILES 4CHILDREN".

This Baseline Practitioner Survey will feed into the Pilot Scheme. Taking part is voluntary and should only take 5 minutes to complete. Please tick the appropriate boxes accordingly.

All information will be treated in accordance with the Isle of Man Data Protection Act 2002.

Baseline Practitioner Survey

Q1 How confident are you that you know the correct technique to clean children's teeth? (1 being 'not confident at all' and 5 being 'very confident'.)

1 2 3 4 5

Q2 Do you know how much fluoride should be in children's toothpaste, based on their age?

	Less than 1000ppm	At least 1000ppm	More than 1000ppm	1350-1500ppm	I don't know
Age 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q3 Do you think toothpaste should be applied to the toothbrush when it is:

Wet Dry I don't know

Q4 Do you know the appropriate amount of toothpaste to use according to the children's age?

	A smear	A pea sized amount	I don't know
Age 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q5 Do you think children should rinse their mouth after brushing, or spit the toothpaste without rinsing after brushing?

Rinse with water
 Spit out toothpaste and not rinse
 I don't know

Q6 Do you know how long children should brush their teeth for?
 1 minute 2 minutes 3 minutes 4 minutes

Q7 Which of the following sentences best describes how toothbrushes should be stored?
 Toothbrush stored lying down with a ventilated cover
 Toothbrush stored lying down with a non-ventilated cover
 Toothbrush stored lying down with no cover
 Toothbrush stored standing up with a ventilated cover
 Toothbrush stored standing up with a non-ventilated cover
 Toothbrush stored standing up with no cover

Q8 Do you feel confident in supervising children's toothbrushing? (1 being 'not confident at all' and 5 being 'very confident'.)
 1 2 3 4 5


Q9 If parents asked you for advice about their children's dental health, where would you sign-post them to for information?
 We provide own advice
 Local dentist
 Public Health Directorate
 Website (please specify website)

Q10 If you have any further comments related to toothbrushing, please state:

Thank you for completing this questionnaire.

Oral Health:
Public Health Directorate, Cronk Coar, Noble's Hospital, Strang, Isle of Man, IM4 4RJ
Tel:(01624) 642639 Email:publichealth.dhsc@gov.im Survey Reference:PHOH01.08/17

Baseline Parents Survey



Isle of Man
Government
Ynys Môn

Isle of Man 2017
Supervised Toothbrushing Pilot Scheme

Name of Nursery (optional): _____

Thank you for taking the time to complete this questionnaire.

The Public Health Directorate is undertaking a three month Supervised Toothbrushing Pilot Scheme, which aims to collect data to inform and drive future oral health initiatives. This survey is based upon the Public Health England initiative - Delivering Supervised Toothbrushing for Two, Three and Four Year Olds in Early Years Settings "SMILES 4CHILDREN".

This Baseline Parent Survey will feed into the Pilot Scheme. Taking part is voluntary and should only take 5 minutes of your time. Please tick the appropriate boxes accordingly and return the questionnaire by the 25th September 2017, using the prepaid envelope provided.

All information will be treated in accordance with the Isle of Man Data Protection Act 2002.

Baseline Parents Survey

Q1 What age is your child?
 2 3 4

Q2 Is your child reluctant to brush their teeth?
 Yes No Sometimes

Q3 Does your child find toothbrushing difficult?
 Yes No Sometimes

Q4 Has your child seen a dentist in the last 12 months?
 Yes No

Q5 If 'Yes', is your dentist helpful in giving you advice about your child's dental health?
 Yes No

Q6 Has your child had any dental problems/procedures? Tick all that apply.

<input type="checkbox"/> Cavities <input type="checkbox"/> Tooth Decay <input type="checkbox"/> Gum Disease <input type="checkbox"/> Tooth Removal <input type="checkbox"/> Abscess	<input type="checkbox"/> Complained of toothache <input type="checkbox"/> No problems/procedures <input type="checkbox"/> Never visited the dentist <input type="checkbox"/> Visit the dentist
---	---

Other, please state:


- Q7 Do you feel you require further guidance for toothbrushing?
 Yes No
- Q8 Do you know the amount of fluoride that should be in your child's toothpaste, based on their age?
 Less than 1000ppm 1350-1500ppm
 At least 1000ppm I don't know
 More than 1000ppm
- Q9 Do you know the appropriate amount of toothpaste to use for your child's age group
 A smear A pea-sized amount I don't know
- Q10 How confident are you that you know the correct toothbrushing method? (1 being 'not confident' and 5 being 'very confident'.)
 1 2 3 4 5
- Q11 Do you know how long your child should brush their teeth for?
 1 minute 2 minutes 3 minutes 4 minutes
- Q12 Do you consider the following when choosing the correct toothbrush for your child? Tick all that apply.
 Strength of bristles
 Shape of handle
 Size of head
 Electric or manual
 All of the above
 None of the above
- Q13 Do you think toothpaste should be applied to the toothbrush when it is:
 Wet Dry I don't know
- Q14 Do you think children should rinse their mouth after brushing, or spit the toothpaste without rinsing after brushing?
 Rinse with water
 Spit out toothpaste and not rinse
 I don't know
- Q15 If you have any further comments related to toothbrushing, please provide detail here:

Thank you for completing this questionnaire.

Oral Health:

Public Health Directorate, Cronk Coar, Noble's Hospital, Strang, Douglas, Isle of Man, IM4 4RJ
 Tel:(01624) 642639 Email:publichealth.dhsc@gov.im Survey Reference:PHOH03.08/17

Practitioner Follow Up Survey



Isle of Man
Government
Ballajet, Ellen Vassie

**Isle of Man 2017/18
Supervised Toothbrushing Pilot Scheme**

Name of Nursery: _____

The Public Health Directorate's three month Supervised Toothbrushing Pilot Scheme has now reached the final stages. Data collected from the pilot scheme will be used to inform and drive future oral health initiatives. This survey is based upon the Public Health England initiative - Delivering Supervised Toothbrushing for Two, Three and Four Year Olds in Early Years Settings "SMILES 4CHILDREN."

This Practitioner Follow Up Survey will feed into and conclude the Pilot Scheme. Taking part is voluntary and should only take 5 minutes to complete. Please tick the appropriate boxes accordingly and return the questionnaire by the 29th January 2018, using the prepaid envelope provided.

All information will be treated in accordance with the Isle of Man Data Protection Act 2002.

Practitioner Follow Up Survey

Q1 Do you think you are more knowledgeable about toothbrushing, having participated in the Supervised Toothbrushing Pilot Scheme?

Yes No

Q2 Are you now more confident in supervising children's toothbrushing, having participated in the Supervised Toothbrushing Pilot Scheme?

Yes No

Q3 How confident are you supervising children's toothbrushing? (1 being 'not confident' and 5 being 'very confident'.)

1 2 3 4 5

Q4 How confident are you that you know the correct technique for cleaning children's teeth? (1 being 'not confident at all' and 5 being 'very confident'.)

1 2 3 4 5

Q5 How easy was it to incorporate toothbrushing into your daily routine? (1 being 'very difficult' and 5 being 'very easy'.)

1 2 3 4 5

Q6 Do you know how much fluoride should be in children's toothpaste, based on their age?

	Less than 1000ppm	At least 1000ppm	More than 1000ppm	1350-1500ppm	I don't know
Age 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q7 Do you think toothpaste should be applied to the toothbrush when it is:
 Wet Dry I don't know

Q8 Do you know the appropriate amount of toothpaste to use according to children's age?

	A smear	A pea sized amount	I don't know
Age 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q9 Do you think children should rinse their mouth after brushing, or spit the toothpaste out without rinsing after brushing?
 Rinse with water Spit out toothpaste and not rinse I don't know

Q10 Do you know how long children should brush their teeth for?
 1 minute 2 minutes 3 minutes 4 minutes

Q11 Which of the following sentences best describes how toothbrushes should be stored?
 Toothbrush stored lying down with a ventilated cover Toothbrush stored standing up with a ventilated cover
 Toothbrush stored lying down with a non-ventilated cover Toothbrush stored standing up with a non-ventilated cover
 Toothbrush stored lying down with no cover Toothbrush stored standing up with no cover

Q12 If parents asked you for advice about their children's dental health, where would you sign-post them to for information?
 We provide own advice
 Local dentist
 Public Health Directorate
 Website (please specify website)


Q13 Do you feel you need further guidance for toothbrushing?
 Yes No

Q14 Would you agree that supervised toothbrushing within the nursery is beneficial?
 Strongly Disagree Disagree Undecided Agree Strongly Agree

Q15 If you have any further comments, please provide detail here:

Thank you for taking the time to complete this questionnaire.
Oral Health:
Public Health Directorate, Cronk Coar, Noble's Hospital, Strang, Douglas, Isle of Man, IM4 4RJ
Tel:(01624) 642639 Email:publichealth.dhsc@gov.im Survey Reference:PHOH02.01/18

Parents Follow Up Survey



Isle of Man
Government
Gubharnagh Yn Mannan

**Isle of Man 2017/18
Supervised Toothbrushing Pilot Scheme**

Name of Nursery (Optional): _____

The Public Health Directorate's three month Supervised Toothbrushing Pilot Scheme has now reached the final stages. Data collected from the pilot scheme will be used to inform and drive future oral health initiatives. This survey is based upon the Public Health England initiative - Delivering Supervised Toothbrushing for Two, Three and Four Year Olds in Early Years Settings "SMILES 4CHILDREN".

This Parents Follow Up Survey will feed into and conclude the Pilot Scheme. Taking part is voluntary and should only take 5 minutes of your time. Please tick the appropriate boxes accordingly and return the questionnaire by the 29th January 2018, using the prepaid envelope provided.

All information will be treated in accordance with the Isle of Man Data Protection Act 2002.

Parents Follow Up Survey

Q1 What age is your child?
 2 3 4

Q2 Was your child reluctant to brush their teeth before the pilot scheme?
 Yes No Sometimes

Q3 Following the pilot scheme, is your child reluctant to brush their teeth?
 No Less than before More than before No change

Q4 Did your child find toothbrushing difficult before the pilot scheme?
 Yes No Sometimes

Q5 Following the pilot scheme, does your child find toothbrushing difficult?
 No Less than before More than before No change

Q6 Do you think you are more knowledgeable about toothbrushing because of the pilot scheme?
 Yes No

Q7 Has your child seen a dentist in the last 12 months?
 Yes No

Q8 As a result of the pilot scheme, how likely are you to take your child to see a dentist?
 Not likely Somewhat likely Very likely

- Q9 Do you know the appropriate amount of fluoride which should be in your child's toothpaste, based on their age?
- Less than 1000ppm More than 1000ppm I don't know
 At least 1000ppm 1350-1500ppm
- Q10 Do you know the appropriate amount of toothpaste to use for your child's age group?
- A smear A pea-sized amount I don't know
- Q11 How confident are you that you know the correct toothbrushing method? (1 being 'not confident at all' and 5 being 'very confident'.)
- 1 2 3 4 5
- Q12 Do you know how long your child should brush their teeth for?
- 1 minute 2 minutes 3 minutes 4 minutes
- Q13 What do you consider when choosing the correct toothbrush for your child? Tick all that apply.
- Strength of bristles Electric or manual
 Shape of handle All of the above
 Size of head None of the above
- Q14 Do you think toothpaste should be applied to the toothbrush when it is:
- Wet Dry I don't know
- Q15 Do you think children should rinse their mouth after brushing, or spit the toothpaste without rinsing after brushing?
- Rinse with water Spit out toothpaste and not rinse I don't know
- Q16 Do you feel you require further guidance for toothbrushing?
- Yes No
- Q17 Would you like to see supervised toothbrushing continue as a nursery activity?
- Yes No
- Q18 If you have any further comments, please provide detail here:

Thank you for taking the time to complete this questionnaire.

Oral Health:

Public Health Directorate, Cronk Coar, Noble's Hospital, Strang, Douglas, Isle of Man, IM4 4RJ
 Tel:(01624) 642639 Email:publichealth.dhsc@gov.im Survey Reference:PHOH04.01/18

Parent/Guardian Information Leaflet

IMPORTANT INFORMATION

Tooth-friendly food and drinks

- Keep food and drink containing sugars to mealtimes only
- Plain milk and water are the safest drinks for teeth
- Avoid anything other than plain water in the hour before bed and at night.

For further information or advice, contact a member of the Public Health team on 01624 682325.

References

NHS Scotland (2015) National Standards for Nursery and School Toothbrushing Programmes
http://www.child-smile.org.uk/uploads/documents/5040_Toothbrushing%20standards.pdf

Colgate/Oral Care Centre (2017)
<http://www.colgate.com/en/sa/oc/oral-health/basics/brushing-and-flossing/article/how-to-brush>
<https://www.colgateprofessional.com/patient-education/articles/childhood-oral-hygiene-and-the-role-of-parents>
<http://www.colgate.com/en/sa/oc/oral-health/basics/selecting-dental-products/article/kids-toothbrushes-what-to-look-for-your-child-1074>

NHS Choices - Fluoride
<http://www.nhs.uk/conditions/fluoride/Pages/Introduction.aspx>

Useful links:

Public Health on 01624 682325.
 Childsmile Website
www.child-smile.org.uk
 Childsmile National Toothbrushing Programme
www.youtube.com/watch?v=Zz3ZcN01Vcg
 School/Nursery Toothbrushing Demonstration: Dental Buddy www.youtube.com/watch?v=PZAuCGbb4

Also refer to the Parents Toothbrushing leaflet.

www.gov.im/oralhealth

The information in this leaflet can be provided in large format or in audio format on request

SUPERVISED TOOTHBRUSHING
Parent / Guardian

HEALTH IMPROVEMENT





Department of Health and Social Care
Public Health Directorate
Gosk Crax, Niddis Hospital, Strang, Douglas,
Isle of Man IM4 4RZ
Telephone: 01624 642639
Email: publichealth@gov.im
www.gov.im/publichealth



HEALTH IMPROVEMENT
Public Health Directorate

MIP-0402-0817

Isle of Man Statistics

In 2015, 27.6% of 5 year olds on the Isle of Man had suffered from tooth decay. This is over one in four 5 year olds.

Toothbrush and Toothpaste

Toothbrushes should have a small head size with soft bristles.

Toothbrushing should be replaced when the bristles fray and no longer stand up straight, or after three months - whichever comes first.

Children under 3 years of age:

Should have their teeth brushed by their parent/guardian, using a smear of toothpaste containing at least 1000ppm (parts per million) fluoride on a dry toothbrush at least twice daily.

Children between 3 and 6 years of age:

Should use a pea sized amount of toothpaste containing more than 1000ppm fluoride on a dry toothbrush at least twice daily, and should be assisted until at least 8 years of age.

Adults:

Should brush at least twice daily with a toothpaste containing 1350-1500ppm fluoride on a dry toothbrush.

Mouthwash is not recommended for nursery-aged children.

Fluoride

Fluoride is a mineral that helps to prevent tooth decay.

Brushing your teeth thoroughly with fluoride toothpaste is one of the most effective ways of preventing tooth decay.

Manx water is not fluoridated, which is another reason why it is important for children to brush their teeth regularly with fluoride toothpaste to ensure they receive the benefits.

How to brush teeth correctly

Brushing at home at least twice a day with fluoride toothpaste can help prevent tooth decay. Proper toothbrushing takes at least two minutes.

Concentrate on thoroughly cleaning each section as follows:

- Clean the outer surfaces of the upper teeth, then the lower teeth
- Clean the inner surfaces of the upper teeth, then the lower teeth
- Clean the chewing surfaces
- 'Spit, don't rinse' after brushing - this gives the toothpaste time to work to protect the teeth
- Last thing before going to bed at night time is the most important time to brush teeth.

Why is toothbrushing important?

Tooth decay is the most common chronic condition in children and young people. It is also the top cause of childhood hospital admission for five to nine-year-olds.

Toothache not only causes pain, but difficulties eating and sleeping, school absence and slower growth and development.

The foundation for healthy permanent teeth in children is laid during the first year of life. When baby teeth are damaged or destroyed as a result of decay, they are unable to guide permanent teeth into their proper position, resulting in crowded or crooked adult teeth.

If left untreated, decay can also spread from the baby tooth to the permanent tooth forming underneath.

It is essential to establish a proper oral hygiene routine early in life to help ensure the development of strong, healthy teeth.

Twice-daily brushing at home should take place every day, once in the morning and once at night, before bed.

This Supervised Toothbrushing Programme is in place to enhance the brushing practice that takes place at home (it is not to be seen as a replacement for this).

DID YOU KNOW?
 In 2015, 27.6% of 5 year olds on the Isle of Man had suffered from tooth decay. This is over one in four 5 year olds.

Practitioner Information Leaflet

Storage systems display symbols corresponding with those on the toothbrushes to allow individual identification.

Storage systems in toilet areas must have manufacturers' covers and are stored at adult height or in a suitable trolley.

Dedicated household gloves should be worn when cleaning storage systems and sinks.

Storage systems, including trolleys, must be washed weekly with warm soapy water and replaced if cracks, scratches or rough surfaces develop.

Any toothbrushes dropped on the floor should be discarded.

Parental Consent

Parental consent is required for children to participate in the scheme.

If a child has not been given parental consent, they will be unable to take part.

References

NHS Scotland (2015) National Standards for Nursery and School Toothbrushing Programmes
http://www.child-smile.org.uk/uploads/documents/5040_Toothbrushing%20Standards.pdf

Colgate Oral Care Centre (2017)
<http://www.colgate.com/en-us/oral-health/basics/brushing-and-flossing/article/how-to-brush>

Useful links:

Public Health on 01624 682325.

Childsmile Website
www.child-smile.org.uk

Childsmile National Toothbrushing Programme
www.youtube.com/watch?v=Zz3ZzNQ1Vcg

School/Nursery Toothbrushing Demonstration: Dental Buddy
www.youtube.com/watch?v=FZiAvtCGbb4

Also refer to the Parents Toothbrushing leaflet.

www.gov.im/oralhealth

The information in this leaflet can be provided in large format or in audio format on request

SUPERVISED TOOTHBRUSHING

Nursery Staff

HEALTH IMPROVEMENT





Department of Health and Social Care
Public Health Directorate
 Cook Cook, Nobber's Hospital, Strang, Douglas,
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www.gov.im/publichealth



HEALTH IMPROVEMENT
 Public Health Directorate

REF: OH13/0417

How to brush teeth correctly

Proper toothbrushing takes at least two minutes.

Concentrate on thoroughly cleaning each section as follows:

- Clean the outer surfaces of the upper teeth, then the lower teeth
- Clean the inner surfaces of the upper teeth, then the lower teeth
- Clean the chewing surfaces

'Spit, don't rinse' after brushing - this gives the toothpaste time to work to protect the teeth.

How to dispense toothpaste

Toothpaste provided by the programme, containing at least 1000ppm (parts per million) fluoride, is used.

A smear of toothpaste is used for children under 3 years, and a pea-sized amount for children 3 years and over.

Where toothpaste is shared, a supervisor dispenses it onto a clean surface such as a plate or paper towel.

Ensure there is sufficient spacing between the quantities of dispensed toothpaste to allow collection without cross-contamination.

Toothpaste must only be dispensed at the time the child is ready to brush.

Supervisors should cover any cuts, abrasions or breaks in their skin with a waterproof dressing.

Supervised Toothbrushing

The supervisor should wash their hands before and after the toothbrushing session to prevent cross-infection.

The child (under supervision) is responsible for collecting the toothbrush from the storage system. Discretion should be used if a child has additional support needs.

If in a wet setting:

Ideally, no more than two children are permitted at each available sink. They should be supervised and encouraged to spit excess toothpaste into the sink.

If in a dry setting:

After toothbrushing is completed, children should spit excess toothpaste into either a disposable tissue, disposable paper towel or disposable cup.

Tissues/paper towels or cups must be disposed of immediately after use in a bin.

Toothbrushes can either be:

- returned to the storage system by each child. The system is then taken to an identified sink area by the supervisor, who is responsible for rinsing each toothbrush individually under cold running water or

- rinsed at a designated sink area where each child is responsible for rinsing their own toothbrush under cold running water. The supervisor or the child can be responsible for the control of the running tap.

After rinsing of the toothbrushes is complete, the child or the supervisor is responsible for shaking off excess water into the sink. Toothbrushes should not come into contact with the sink.

Each child (under supervision) is responsible for returning their own toothbrush to the storage system to air dry. Discretion should be used if a child has additional support needs. Lids should be replaced at this stage provided that there is sufficient air circulation.

Paper towels should be used to mop up all visible drips on the storage system.

Supervisors are responsible for rinsing sinks after toothbrushing is completed.

Storage of toothbrushes and infection control

Toothbrushes are stored in appropriate storage systems or individual ventilated holders.

Storage systems enable brushes to stand in the upright position.

Storage systems allow sufficient distance between toothbrushes to avoid cross-contamination.

Practitioner Information Poster



SUPERVISED TOOTHBRUSHING

Nursery Staff

HOW TO BRUSH TEETH CORRECTLY

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Storage systems in toilet areas must have manufacturers' covers and are stored at adult height or in a suitable trolley.

Dedicated household gloves should be worn when cleaning storage systems and sinks.

Storage systems, including trolleys, must be washed weekly with warm soapy water and replaced if cracks, scratches or rough surfaces develop.

Any toothbrushes dropped on the floor should be discarded.

PARENTAL CONSENT

Parental consent is required for children to participate in the scheme.

If a child has not been given parental consent, they will be unable to take part.

REFERENCES

NHS Scotland (2015) National Standards for Nursery and School Toothbrushing Programmes
http://www.child.gov.scot/uploads/documents/51461_toothbrushing%20standards.pdf

Colgate Oral Care Centre (2017)
<http://www.colgate.com/au/en/oral-health/brushing-and-flossing/articles/how-to-brush>

For more information visit
www.gov.im/oralhealth



Smear of toothpaste



Pea-sized amount of toothpaste



Isle of Man
Government

Department of Health and Social Care
Public Health Directorate

Cronk Coar, Noble's Hospital, Strang, Douglas, Isle of Man IM4 4RJ

Telephone: 01624 642639 | Email: publichealth.dh@gov.im

www.gov.im/publichealth

REF: CH03 08/17

Toothbrushing Guide Sheet

Pattern for Toothbrushing

Top teeth

- 20 seconds inside
- 20 seconds biting
- 20 seconds cheek side



Bottom teeth

- 20 seconds inside
- 20 seconds biting
- 20 seconds cheek side



Top Tip:

The toothbrush should be felt on the gums when brushing!

Promotional Poster

**SUPERVISED TOOTHBRUSHING
Pilot Programme**

HEALTH IMPROVEMENT

Around a quarter of five year olds on the Isle of Man have tooth decay. It affects children's ability to sleep, eat, speak, play and socialise with other children.

Your child's nursery is taking part in a supervised toothbrushing pilot programme, led by the Isle of Man Government Public Health Directorate.

The pilot programme will start in **September 2017**.

Research tells us that brushing at least twice a day with fluoride toothpaste can help prevent tooth decay. To support this, we are trialling a daily supervised toothbrushing programme to take place in the nursery setting, in addition to brushing at home.

For more information visit
www.gov.im/oralhealth

DID YOU KNOW?
In 2015, 27.6% of 5 year olds on the Isle of Man had suffered from tooth decay.
This is over one in four 5 year olds.


Isle of Man Government
Kulljag Eilan Vannin

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HEALTH IMPROVEMENT
• Public Health Directorate

Total Expenditure Costs

Item	Quantity	Price
Design and Setting		
Consent forms	N/A	£51.00
2x information leaflets and 2x posters	N/A	£241.00
Printing		
Consent forms	500	£134.00
Parent information leaflets	500	£126.00
Practitioner information leaflets	100	£95.00
A3 posters (x2 designs)	100	£68.00
Baseline parent surveys	500	£134.00
Training Supplies		
S-rack 10	1	£9.00
S-rack 10 lid	1	£3.00
Toothbrushes	10	£3.00
100ml toothpaste	1	N/A
First Term Supplies		
S-rack 20	6	£87.00
S-rack 20 lids	6	£27.00
S-rack 10	27	£243.00
S-rack 10 lids	27	£81.00
Toothbrushes	340	£102.00
Baby toothbrushes	20	£6.00
Unprinted toothbrushes	130	£36.66
100ml toothpaste	72	£41.04
Delivery charge	2	£20.00
Extras		
Plastic plates	2 x packs of 6	£2.98
Toothbrushing reward stickers	45 packs	£70.87
Total		£1,578.57

* Note: Staff provide their own toothbrushes for the purpose of demonstration etc.

Breakdown of Costs

Item of Expenditure	Unit Cost (exc. VAT)	Notes	Cost per setting (30) per annum	*Indicative Cost per Child
500 Consent Forms (printed)	£134.00	1 consent form per child.	£8.04	£0.27
S-Rack-10	£9.00	Replacement not required unless damaged.	£9.00	£0.30
S-Rack 10 Lid	£3.00	Replacement not required unless damaged.	£3.00	£0.10
S-Rack-20	£14.50	Replacement not required unless damaged.	£14.50	£0.48
S-Rack 20 Lid	£4.50	Replacement not required unless damaged.	£4.50	£0.15
Toothbrush	£0.30	Toothbrushes replaced every three months (four times per annum).	£35.40	£1.18
Toothpaste 1450 ppmF (100ml)	£0.57	20 x 100ml tubes of toothpaste required per annum for 30 children*.	£11.40	£0.38
Print 500 parent information leaflets	£126.00	Based on 1 parent information leaflet per child.	£7.56	£0.25
Print 100 (2x 50) A3 posters (info and promotional)	£68.00	Based on 5 posters per nursery.	£3.40	£0.11
Total Costs	£359.87		£96.80	£3.23

* Based on usage of a pea-sized amount of 0.25ml¹² per child per day

Acknowledgements

Thank you to the following staff and organisations for helping with the preparation and delivery of this supervised toothbrushing pilot programme.

- Advisory Teacher Early Years
- AMS International
- Childsmile
- Dental Nurse Team Leader, Community Dental Service
- Director of Public Health, Public Health
- Foundation Years
- Head of Registration & Inspection Unit, Registrations and Inspections
- Oral Health, Steering Group
- Parents and Guardians of children taking part
- Participating Nurseries and employees who delivered the supervised toothbrushing Pilot Programme (Hopes & Dreams, Parklands, The Buzz Pre-school, the Buchan Nursery, Crossroads, Children's Centre)
- Public Health Intelligence Team, Public Health
- Public Health Strategist, Public Health
- Senior Healthcare Public Health Practitioner, Public Health
- Social Marketing Team, Public Health
- West Region Programme Manager - Childsmile

Evaluation and Report undertaken by:

Eleanor Bennett, Health Improvement Officer
Department of Health & Social Care
Public Health Directorate

June 2018

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Reiltys Ellan Vannin



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DEPARTMENT OF HEALTH AND SOCIAL CARE

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