Report to:	EXECUTIVE
Relevant Officer:	Dr Arif Rajpura, Director of Public Health
Relevant Cabinet Member:	Councillor Amy Cross, Cabinet Member for Reducing Health Inequalities and Adult Safeguarding
Date of Meeting:	18th January 2016

INTRODUCTION ON MILK FLOURIDATION FOR PRIMARY SCHOOL CHILDREN

1.0 Purpose of the report:

1.1 To consider a proposal for the introduction of fluoridated milk as part of the Free School Breakfast Initiative. A fluoridated milk scheme has previously been discussed by the Executive, but it was decided not to progress at that stage pending further work to review the current oral health strategy. This report also provides a further update on fluoridated milk, and findings from the Blackpool Urinary Fluoride Monitoring project undertaken in June 2015.

2.0 Recommendation(s):

2.1 To agree to the proposal to introduce a fluoridated milk scheme as part of the Council's Free School Breakfast Initiative.

2.2 To note the details of the implementation plan as outlined in Paragraph 5.6 will be agreed by the Director of Public Health after consultation with the relevant Cabinet Member and the implementation group.

3.0 Reasons for recommendation(s):

3.1 The World Health Organisation (WHO) recommends fluoride milk as being effective in reducing the incidence of dental decay.

Key research from World Health Organisation on the prevention of Dental Caries recommends milk containing added fluoride as an alternative vehicle for population wide administration of fluoride and reducing decay in teeth.

Children in the Blackpool area have high levels of tooth decay. For areas without access to optimal levels of fluoride in water, the World Health Organisation supports the use of other affordable modes of fluoride vehicles such as fluoridated

milk to help prevent dental decay. The beneficial effects of fluoride in milk has been established by the European Union and the World Health Organisation with the conclusion that fluoride in milk has been shown to contribute to maintaining tooth mineralisation. This is why fluoride is widely used in many ways for example water or toothpaste and mouth washes. A well mineralised tooth is what everyone is trying to achieve to prevent decay.

The effectiveness of milk fluoridation as a public health measure has been shown in a number of studies world-wide. Thus the proposal is to introduce a fluoridated milk scheme using the well established free breakfast scheme to deliver the milk to primary school children aged [5-11]. It is hoped that aside from the health benefits of the milk, the added fluoride will lead to a significant improvement in the permanent dentation of the children who participate. As part of the existing Free School Breakfast scheme Blackpool primary school children currently receive 1/3rd of a pint of milk daily which is 189 ml. Under the proposed fluoridated milk scheme each carton of milk will contain 0.8mg Fluoride in 189 ml of milk (This is equivalent to 4.2 ppm).

3.2a	Is the recommendation contrary to a plan or strategy adopted or approved by the Council?	No
3.2b	Is the recommendation in accordance with the Council's approved budget?	Yes

3.3 Other alternative options to be considered:

Not to agree to the provision of fluoridated milk as part of the Free School Breakfast scheme.

To support the introduction of fluoridated milk without a parental opt out.

4.0 Council Priority:

4.1 The relevant Council Priorities are

- "The economy: Maximising growth and opportunity across Blackpool"
- "Communities: Creating stronger communities and increasing resilience"

5.0 Background Information

5.1 Dental health of children in Blackpool Council

Poor dental health can have a significant impact on daily living. It can affect a child's ability to eat, speak and socialise. It can cause pain and sepsis, and loss of school time. Treatment can require hospitalisation and use of general anaesthesia.

The dental health of children in Blackpool is considerably worse than average with 17% of Blackpool's three year olds and 40% of Blackpool's five year olds having at least one decayed, missing or filled teeth (dmft). The average number of decayed, missing or filled teeth amongst five year old children is 3.85. This is higher than the national average of 31% having an average of 3.45 decayed, missing or filled teeth. Almost half of twelve year olds (43%) in Blackpool have at least one decayed, missing or filled teeth . The average number of decayed, missing or filled teeth these children have is 2.49. Again this is higher than the national average of 33.4% having an average 2.21 decayed, missing or filled teeth.

Each year around 400 children in Blackpool are admitted to hospital to have teeth extracted under a general anaesthetic.

5.2 Approaches to improving children's dental health and existing oral health strategy

Blackpool Council is responsible for improving oral health and reducing oral health inequalities in its population. As part of the oral health strategy a number of interventions to improve oral health are already commissioned by Blackpool Council, these include: oral health education for health and social care staff, 'Smile for life' educational programmes for children's centres and nurseries, Dental Epidemiology surveys, Toothbrush and toothpaste distribution at 6 key contacts between 3 months and to 4/5 years, and a newly established Supervised Brushing scheme in children's centres.

In spite of these existing interventions that have been in place over number of years, the oral health of children in Blackpool remains significantly worse than England and its statistical neighbours in the Northwest (Manchester, Liverpool, and Knowsley). Blackpool has the highest rate of admissions for dental decay for all similar sized local authorities and is significantly higher than the national average.

The water supply available for use by the population of Blackpool does not contain the optimum level of fluoride required to bring about the beneficial effects of decay prevention in teeth, and complex legislative processes, technical analysis of water flows in the region and the initial cost outlay required, makes the consideration of a new water fluoridation scheme for Blackpool unviable in the current economic climate.

A fluoridated milk scheme based in primary schools is advocated as an additional fluoride based prevention stratagem to the existing suite of oral health initiatives in Blackpool in the absence of the preferred option of water fluoridation.

5.3 Research evidence base

The use of alternative methods of applying fluoride to the teeth in population-wide interventions where water fluoridation is not available is endorsed by the World Health Organisation (WHO). The use of fluoride milk is one of the alternative population-wide fluoride interventions recommended by the World Health Organisation. Various studies have been carried out over the years to assess the effectiveness of fluoridated milk in tooth decay prevention. There have been three exhaustive appraisal, synthesis and summary of the available literature conducted to date (systematic reviews). The first of these systematic reviews concluded that there was insufficient evidence to show the effectiveness of fluoridated milk in preventing tooth decay. The other two subsequent systematic reviews, reported that although fluoridated milk was found to be beneficial in prevention or reduction of tooth decay, these findings were based on low quality scientific evidence. A recent study by Yeung et al (2015) looked at three year olds given either fluoridated or non-fluoridated milk in an area of high prevalence of dental caries (decay) or a low level of fluoride in drinking water; evidence was found to suggest fluoridated milk may be beneficial, substantially reducing the formation of caries (decay) in baby teeth. Other researchers have however reported that operational and process issues that impair the implementation of fluoridated milk schemes may be confounders in evaluating the effectiveness of fluoridated milk in preventing tooth decay. Improving the effectiveness of fluoridated milk in preventing tooth decay may therefore be dependent on ensuring optimally implemented schemes which are run as part of a whole settings approach.

5.4 Proposal for a fluoridated milk scheme in Blackpool

Blackpool Council has an existing successful scheme offering free breakfast for all children attending primary schools in the area. As part of this scheme 8,400 (76%) of 11,000 children in the breakfast scheme drink milk on a daily basis. This whole settings approach as well as the infrastructure, systems and processes which are already in place as result of the breakfast scheme obviate substantial difficulties experienced by other schemes and thus provides the near optimal situation that has been proposed as a way of improving the effectiveness of fluoridated milk in preventing tooth decay.

5.5 **Baseline Urinary Fluoride Excretion (UFE) of 3-5 year old children in Blackpool-monitoring exercise June 2015**

To establish a further understanding of the extent of oral health inequality in Blackpool and ascertain if there is a requirement for implementing an additional fluoride scheme in Blackpool, Public Health, representatives from the Borrow Foundation, and dental colleagues from Public Health England, agreed to undertake a monitoring exercise to look at the baseline Urinary Fluoride Excretion (UFE) of 3-5 year old children in Blackpool.

The World Health Organisation (WHO) recommends monitoring fluoride exposure in children prior to any decision-making on the introduction of fluoridation or supplementation programmes for the prevention of dental caries (decay) to avoid excessive systemic fluoride intake by children. The World Health Organisation (WHO) provides guidance for monitoring of community prevention schemes through the measurement of Urinary Fluoride Concentration (UFC) and Urinary Fluoride Excretion (UFE).

In line with the current World Health Organisation recommendations and protocols, a baseline Urinary Fluoride Excretion monitoring project was undertaken in June 2015. The aim of the monitoring project was to determine whether, according to the World Health Organisation guidelines, the children involved were receiving the optimum amount of systemic fluoride to help reduce dental decay or whether there was a need for Blackpool Council, and Public Health England, to consider further fluoride supplementation.

The results from the monitoring exercise suggested that the children included in the study had sub-optimal fluoride exposure.

5.6 **Implementation plan**

If the recommendation is approved, a group will be convened to scope out the implementation of the scheme and oversee its application. This group led will be led by the Council's Public Health department and include Dental Public Health experts from Public Health England, Blackpool Teaching Hospitals NHS foundation Trust, representatives from the Borrow Foundation and the Head of Catering from the Council's Community and Environmental Services Department.

Parents will have the choice to opt out of the scheme. Standard operating procedures will be in place to ensure that children receive the appropriate milk. Operational procedures will be instigated and monitored to ensure that milk is stored at optimal temperature to ensure that the milk is palatable for drinking, and to ensure that any fluoridated milk left over after serving is minimal, and disposed of accordingly.

5.7 Does the information submitted include any exempt information? No

5.8 **List of Appendices:**

None

6.0 Legal considerations:

6.1 The Council has a general power of competence under Section 1 of the Localism Act 2011. Under Section 2b of the National Health Service Act 2006 there is a duty on the Council to take such action as it considers appropriate for improving the health of people its area.

7.0 Human Resources considerations:

7.1 None

8.0 Equalities considerations:

8.1 This will be a universal scheme. Fluoridated milk will be offered to all children in Blackpool in Primary School via the Free School Breakfast initiative. Parents will be provided with information through schools and the Blackpool Council website and referred to any other independent resources to assist them in making this choice. Parents will be able to decline inclusion in the scheme if they indicate that they prefer their children to receive non-fluoridated milk.

9.0 Financial considerations:

9.1 All primary school children in Blackpool would be offered fluoridated milk as part of the Free School Breakfast scheme. The process of adding fluoride to milk is straightforward and there is not expected to be any additional cost to offering fluoridated milk. A number of dairies, including the current supplier, now have the capability to supply fluoridated milk. Where the scheme has been introduced in other local authority areas suppliers have been able to supply fluoridated milk at the same prices as non-flouridated milk and the Council is therefore confident that there will be no cost implications.

9.2 Resources for implementation are being sourced from within the Public Health team.

10.0 Risk management considerations:

10.1 None

11.0 Ethical considerations:

11.1 None

12.0 Internal/ External Consultation undertaken:

12.1 Considerable consultation and engagement was undertaken in late 2013 and early 2014. Extensive engagement activity with a wide variety of stakeholders was undertaken, including School Heads, Parents, GP's and acute Trusts, Public Health England and General Dental Practitioners.

12.2 Results from the engagement activity with all stakeholders suggested that they are generally in favour of a milk fluoridation scheme for Blackpool, and that their perception was that children in Blackpool suffer very poor oral health and that this was an unacceptable situation. Stakeholders were in general agreement that the scheme was acceptable and a good idea providing parents had freedom of choice for participation in the scheme. Thus the proposal is to offer fluoridated milk universally to all children in Primary school, and offer parents the choice if they prefer their children to receive non-fluoridated milk.

13.0 Background papers:

13.1 (Banoczy J, Petersen PE, Rugg-Gunn AJ. Milk fluoridation for the prevention of dental caries. World Health Organisation, Geneva 2009.) is available online at http://www.who.int/oral_health/publications/milk_fluoridation_2009_en.pdf .

14.0 Key decision information:

14.1	Is this a key decision?	Yes
14.2	If so, Forward Plan reference number:	23/2015
14.3	If a key decision, is the decision required in less than five days?	No
14.4	If **yes**, please describe the reason for urgency:	

15.0 Call-in information:

15.1	Are there any grounds for urgency, which would cause this decision to be exempt from the call-in process?	No

15.2 If **yes**, please give reason:

TO BE COMPLETED BY THE HEAD OF DEMOCRATIC GOVERNANCE

16.0 Scrutiny Committee Chairman (where appropriate):

Date informed: 8th January 2016 Date approved:

17.0 Declarations of interest (if applicable):

17.1

18.0 Executive decision:

18.1

18.2 **Date of Decision:**

19.0 Reason(s) for decision:

19.1 **Date Decision published:**

20.0 Executive Members in attendance:

20.1

21.0 Call-in:

21.1

22.0 Notes:

22.1