



# MAKING MORE OF MILK



A REPORT BY TETRA PAK

# CONTENT

Foreword	3	Performance of School Milk Schemes	22
Executive summary	4	Müller Milk & Ingredients	24
What does Government need to do?	6	Crediton Dairy	25
Milk's Role in a Varied Diet	9	About Tetra Pak	26
Government funding for school milk	13	About the Research	27
Mixed Milk Messages	16		
Children's perceptions of school milk	17		
Healthy Eating & Milk Workshops	19		



# FOREWORD

Stefan Fageräng, Managing Director North West Europe

Healthy eating in schools is paramount to ensure a healthier future for our children. Access to milk can play a key role in helping to deliver this. Within this report we will outline the role and importance of milk within schools as well as attitudes towards it. We'll also explore how, with a few, simple and popular steps, we can make sure all young children have the chance to drink milk as part of healthy eating, whilst at the same time supporting the UK's dairy industry.



Stefan Fageräng, Managing Director North West Europe

With more than one in five children during their first year of primary school being overweight or obese in England, Scotland and Wales<sup>1</sup> rising to more than a third by the time they start secondary school, there is a renewed focus on children's eating habits. Obesity prevalence for children living in the most deprived areas was more than double that of those living in the least deprived areas<sup>2</sup>. There is a clear link between eating healthily, balanced diets and a lower prevalence in weight gain and research has also suggested a link between frequency of milk consumption and healthy body mass in children<sup>3</sup>.

Milk has been a staple of the human diet for thousands of years. With increased public and government focus on healthy eating and drinking, this rich source of protein, calcium, Vitamin B12 and iodine should continue to be a key part of our children's daily diet, beyond the requirement of hydration. However, consumption is declining even amongst pre-schoolers and especially in children

aged nine and older. Only 55% of primary aged children in the UK are currently drinking milk at school.

For over 50 years, our business has been supporting governments and dairy processors in developing school feeding programmes around the world to address hunger and malnourishment, at the same time as creating demand for agricultural products from the local market. In 2015 Tetra Pak supplied 9.1 billion servings of milk.

This report, developed in consultation with industry groups, considers ways government, school milk providers, schools and parents can increase uptake and remove some of the stumbling blocks preventing greater consumption of milk at primary school. With Defra launching a consultation on the future of the school milk subsidy in England, Scotland and Wales in 2017, this is a timely contribution to the debate about how government and stakeholders can work together to better shape school milk initiatives going forward.

Tetra Pak looks forward to supporting our children, the public sector and industry in making the most of milk as part of this healthier future.

<sup>1</sup>State of Child Health – Report 2017; RCPCH <http://www.rcpch.ac.uk/system/files/protected/page/SOCH-UK-2017.pdf>

<sup>2</sup>National Child Measurement Programme England, 2015/16 school year; NHS Digital <http://content.digital.nhs.uk/catalogue/PUB22269/nati-chil-meas-prog-eng-2015-2016-rep.pdf>

<sup>3</sup>Inverse association between body mass and frequency of milk consumption in children; British Journal of Nutrition (2005), 93 15-19 <https://www.cambridge.org/core/services/aop-cambridge-core/content/view/S0007114505000048>

# EXECUTIVE SUMMARY

The World Health Organisation's (WHO) Commission on Ending Childhood Obesity reminds us that "Supportive policies, environments, schools and communities are fundamental in shaping ...healthier choice of foods."<sup>4</sup> This type of support to improve children's health and nutrition has never been more vital as the UK faces rising obesity levels.

The health benefits of milk for children have long been at the forefront of the UK Government's healthy eating strategy.

Low in sugar, yet high in nutrients, milk offers many of the vitamins and minerals to promote children's healthy development. Young children under the age of five have been able to enjoy free school milk in the UK thanks to a Nursery School Milk scheme since the 1940s, and a European fund has reduced the price of school milk for children up to the age of 18 since 1977.

However, independent research we commissioned in 2016 found that whilst government and European milk schemes provide

valuable support and ultimately nutritional benefit, these have not guaranteed that all school children have access to milk at school.

Overall, only around one in two children are drinking milk in school. Levels of consumption, as well as the subsidies and portion advice offered to encourage milk consumption among children, differ greatly across England, Scotland and Wales.

This comes at a time when improving children's diet in school is critical to tackling rising obesity levels, dehydration and young people's deficiencies in important nutrients like iodine and calcium.

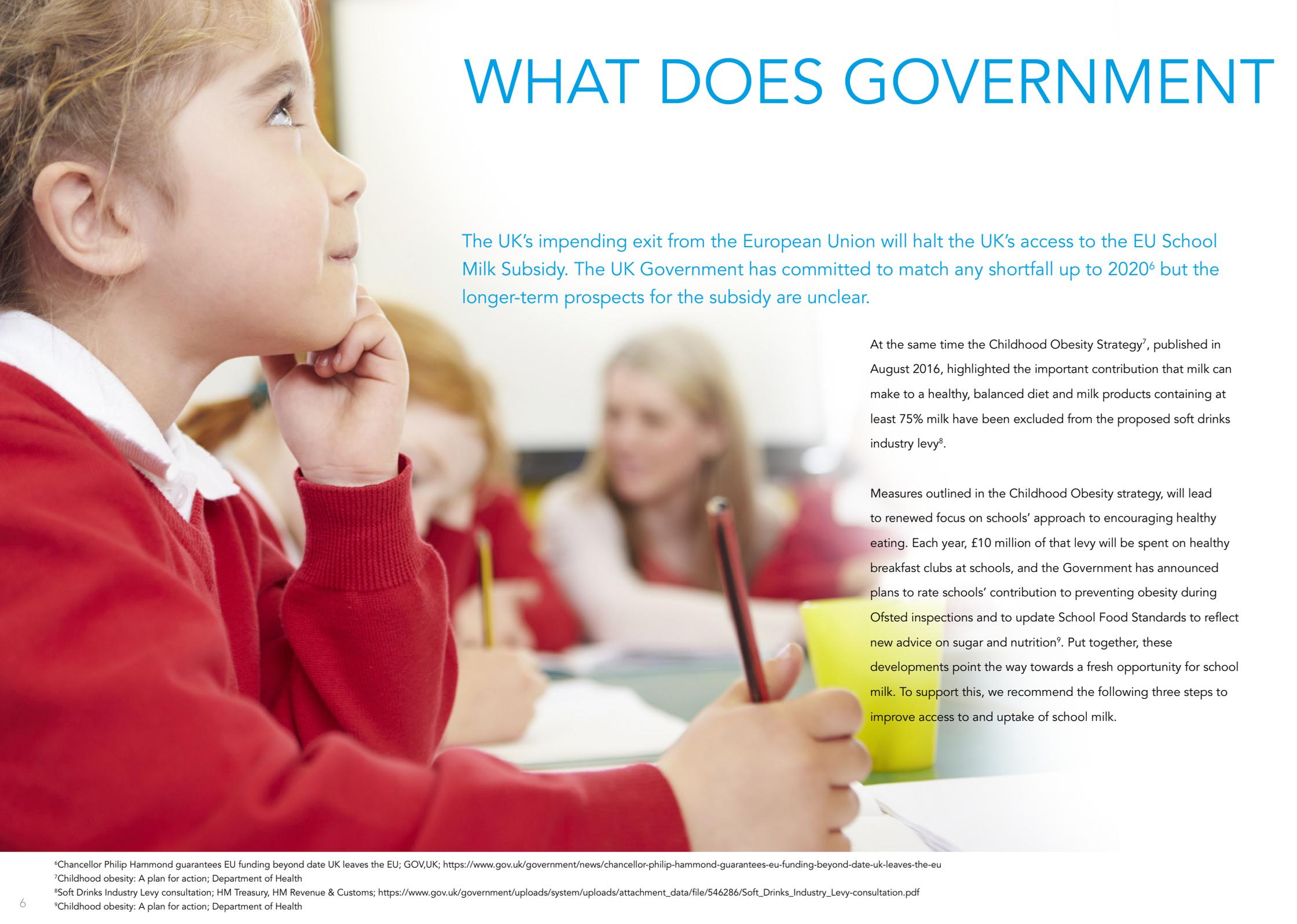
To help combat this, we believe that when the new standards announced in the Childhood Obesity Strategy are introduced in September 2017 to improve school lunches<sup>5</sup>, schools should be encouraged to check and record on a voluntary basis that milk is being offered and consumed daily as part of their ongoing self-evaluation. Over the longer term, this would provide a route towards assessing schools on this as part of their Ofsted and Education Scotland inspections.

Industry and stakeholders are united around the untapped opportunity milk offers school children throughout the UK. As the Government considers the future of school milk subsidies post-Brexit, we cannot forget the important role that it can play in helping children to maintain a healthy, balanced diet. Its future needs to be safeguarded and a fresh look is needed at uptake in schools and how to improve it, building on the policy best practice seen in different parts of the UK.

<sup>4</sup>Facts and figures on childhood obesity; World Health Organisation; <http://www.who.int/end-childhood-obesity/facts/en/>

<sup>5</sup>Childhood obesity: A plan for Action; Department of Health; [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/546588/Childhood\\_obesity\\_2016\\_\\_2\\_\\_acc.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/546588/Childhood_obesity_2016__2__acc.pdf)





# WHAT DOES GOVERNMENT

The UK's impending exit from the European Union will halt the UK's access to the EU School Milk Subsidy. The UK Government has committed to match any shortfall up to 2020<sup>6</sup> but the longer-term prospects for the subsidy are unclear.

At the same time the Childhood Obesity Strategy<sup>7</sup>, published in August 2016, highlighted the important contribution that milk can make to a healthy, balanced diet and milk products containing at least 75% milk have been excluded from the proposed soft drinks industry levy<sup>8</sup>.

Measures outlined in the Childhood Obesity strategy, will lead to renewed focus on schools' approach to encouraging healthy eating. Each year, £10 million of that levy will be spent on healthy breakfast clubs at schools, and the Government has announced plans to rate schools' contribution to preventing obesity during Ofsted inspections and to update School Food Standards to reflect new advice on sugar and nutrition<sup>9</sup>. Put together, these developments point the way towards a fresh opportunity for school milk. To support this, we recommend the following three steps to improve access to and uptake of school milk.

<sup>6</sup>Chancellor Philip Hammond guarantees EU funding beyond date UK leaves the EU; GOV.UK; <https://www.gov.uk/government/news/chancellor-philip-hammond-guarantees-eu-funding-beyond-date-uk-leaves-the-eu>

<sup>7</sup>Childhood obesity: A plan for action; Department of Health

<sup>8</sup>Soft Drinks Industry Levy consultation; HM Treasury, HM Revenue & Customs; [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/546286/Soft\\_Drinks\\_Industry\\_Levy-consultation.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/546286/Soft_Drinks_Industry_Levy-consultation.pdf)

<sup>9</sup>Childhood obesity: A plan for action; Department of Health

# NEED TO DO?

## 1 RECOGNISE THE VALUE AND IMPORTANCE PLACED ON MILK IN HELPING CHILDREN HAVE HEALTHIER DIETS BY GUARANTEEING ITS FUTURE

**a) Maintain the availability of free school milk in the future and ensure it is made available for all 'Reception' children in England for the complete school year instead of cutting access off at each child's 5th birthday as is currently the case.**

The current model makes it complicated for teachers to administer; it is unfair on some children who are suddenly unable to drink milk, like many of their peers, and children are missing out on important nutrients that they would have received through their daily portion of milk.

**b) Protect the school milk subsidy for post-reception aged children once the UK has left the European Union.**

## 2 ENCOURAGE SCHOOLS TO MAKE MILK AVAILABLE THROUGHOUT THE SCHOOL DAY

As a devolved policy matter, there are varying rules around the provision of milk to children in school in different parts of the UK.

As policymakers in England and Scotland prepare to revise the relevant regulations in their countries, we recommend they consider the policies and best practice advice of stakeholders with experience of raising levels of milk consumption in schools.

Policymakers should also examine ways they can encourage and support schools in complying with the relevant regulations.

For example, the regulation in England states that lower fat milk must be available to drink at least once a day during school hours.

Ofsted should consider this as part of developing the new healthy rating scheme for schools coming in to effect in 2017.

Without creating new administrative burdens, schools should be encouraged to check and record on a voluntary basis that milk is being offered and consumed daily as part of their ongoing self-evaluation. In the medium term, this would provide a route towards assessing schools on this as part of their Ofsted and Education Scotland inspections.

## 3 PROMOTE EDUCATION ENSURING ALL NURSERIES AND SCHOOLS ARE COMMUNICATING TO PARENTS, CHILDREN AND TEACHERS ABOUT THE BENEFITS OF MILK

Ensure all nurseries and schools are communicating to parents, kids and teachers about the recommended types of milk, daily portion sizes and benefits of milk. Parents should also be provided with information to improve awareness about their right to ask for free or subsidised milk and how they might easily be able to secure this for their children. This could be via SMS, the school website or newsletter.



Choosing healthy foods for infants and young children is critical because food preferences are established in early life.... Lack of information about sound approaches to nutrition and poor availability and affordability of healthy foods contribute to the problem (of obesity).



*- WHO's Commission on Ending Childhood Obesity*



# MILK'S ROLE IN A VARIED DIET

## Why milk?

Milk's naturally occurring nutrients, including protein, calcium, riboflavin and an array of B vitamins, are essential for our day-to-day lives. They play a key role in bodily functions as diverse as muscle, nerve and brain function, to thyroid hormone production and the maintenance and development of muscle mass, bones and teeth – to name but a few<sup>10</sup>. In support of our dairy industry, combined with offering significant nutritional benefits, milk has been a vital component of the UK diet for people of all ages for centuries. There is also evidence to suggest there is a link between frequency of milk consumption and healthy body mass in children, providing important implications for the prevention of obesity<sup>11</sup>.

Milk consumption plays a particularly important role in physical development for children and young people. Its high-energy content and high nutrient density is ideal for meeting their high-energy needs and filling small stomachs while helping them stay hydrated. The Dairy Council Northern Ireland revealed that a 189ml carton of semi-skimmed milk provides 52% of calcium intake, 59% of iodine intake and 100%+ of B12 intake for young people aged 4-6 years old. These nutrients are important for growth and development, and just under 1 in 6 young people aged 11-18

(14% for calcium; and 15% for iodine, respectively) do not consume enough of them<sup>12</sup>. In teenage girls particularly aged 14-15 years old, the iodine deficiency level was even higher with some research suggesting 7 in 10 girls are deficient in the mineral<sup>13</sup>.

Milk is also a convenient and efficient way for children to absorb calcium compared to some plant sources of calcium. For example, a child would need to eat 63 brussels sprouts, or four servings of broccoli or 11 servings of spinach to receive the same amount of calcium in a 200ml glass of milk<sup>14</sup>. Calcium bio availability, the extent to which it can be absorbed by the body, is impacted by the

food components that are consumed alongside calcium. While protein and phosphorus (which are present in milk) promote calcium absorption, plant foods tend to contain inhibiting substances such as oxalates and phytates. For example, while about 30% to 35% of the calcium in milk is bioavailable, cooked spinach has a calcium bioavailability of an estimated 5%<sup>15</sup>.

One school semi-skimmed milk carton, 189ml, provides roughly half (223 mg) of the daily calcium requirements of children aged 4-6 years (450mg) and 43% of a 7-10 year old's nutrient needs.

## A 200ML GLASS OF SEMI-SKIMMED MILK IS:

High in protein	Contributes to the maintenance of muscle mass and normal bones needed for normal growth and development of bones of children
High in calcium	Needed for normal growth and development of bones in children
A source of phosphorus	Needed for the normal growth and development of bones in children
High in iodine	Contributes to the normal growth of children
High in vitamin B2 (riboflavin)	Contributes to normal skin, vision and nerve functioning
High in vitamin B12	Contributes to the normal function of the immune system

<sup>10</sup>Dairy Council Milk Factsheet; <http://milk.co.uk/resources/resource.aspx?intResourceID=153>

<sup>11</sup>Inverse association between body mass and frequency of milk consumption in children; British Journal of Nutrition (2005), 93 15-19 <https://www.cambridge.org/core/services/aop-cambridge-core/content/view/S0007114505000048>

<sup>12</sup>National Diet and Nutrition Survey - Results from Years 1,2,3 and 4 (combined) of the Rolling Programme (2008/2009 – 2011/12); Department for Health; [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/310997/NDNS\\_Y1\\_to\\_4\\_UK\\_report\\_Executive\\_summary.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/310997/NDNS_Y1_to_4_UK_report_Executive_summary.pdf)

<sup>13</sup>The Lancet; Iodine deficiency in UK schoolgirls, Nov 2011 [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(11\)61691-7/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)61691-7/abstract)

<sup>14</sup>Milk Factsheets; The Dairy Council 2016 [http://www.milk.co.uk/hcp/wp-content/uploads/sites/2/woocommerce\\_uploads/2016/12/Milk\\_consumer\\_2016.pdf](http://www.milk.co.uk/hcp/wp-content/uploads/sites/2/woocommerce_uploads/2016/12/Milk_consumer_2016.pdf)

<sup>15</sup>British Nutrition Foundation – Dietary Calcium and Health [https://www.nutrition.org.uk/attachments/205\\_Dietary%20calcium%20and%20health%20summary.pdf](https://www.nutrition.org.uk/attachments/205_Dietary%20calcium%20and%20health%20summary.pdf)

## PERCENTAGE (%) OF A PRIMARY SCHOOL CHILD'S NUTRIENT NEEDS\* PROVIDED BY A CARTON (189ML) OF SEMI-SKIMMED MILK:

	4-6 year old	7-10 year old
Vitamin B2	59	47
Vitamin B12	100+	100+
Calcium	52	43
Phosphorus	52	41
Iodine	59	53
Potassium	28	15
Protein	34	24

\*Reference Nutrient Intake

Extract from The Dairy Council's Milk Factsheet



## Healthy hydration

Milk plays a key role in hydration during the school day. Research by the Natural Hydration Council found that 71% of children were not drinking enough water during the school day, and that 69% of children are thirsty when they arrive home from school<sup>16</sup>. The British Nutrition Foundation's 'Healthy Hydration' advice for children aged 4-13 years puts milk second only to water as a drink that should be consumed regularly by children<sup>17</sup>.

A study by researchers at the University of Loughborough went one step further to highlight the importance of milk consumption to healthy hydration. They measured the way people's bodies respond to different drinks, and created a beverage hydration index which shows that both full-fat and skimmed milk are potentially a better source of hydration than water<sup>18</sup>. Milk offers a great counter balance to energy drinks, with 18% of children under 10 consuming energy drinks<sup>19</sup>, which are high in sugar and caffeine and are shown not to aid recovery post exercise as well as milk<sup>20</sup>.

<sup>16</sup>Parents call for greater access to drinking water in primary schools; Natural Hydration Council; <http://www.naturalhydrationcouncil.org.uk/press/parents-call-for-greater-access-to-drinking-water-in-primary-schools/>

<sup>17</sup>Children's hydration guide; British Nutrition Foundation; [https://www.nutrition.org.uk/attachments/article/588/Childrens%20Hydration%20Guide\\_Nov16.pdf](https://www.nutrition.org.uk/attachments/article/588/Childrens%20Hydration%20Guide_Nov16.pdf)

<sup>18</sup>A randomized trial to assess the potential of different beverages to affect hydration status: development of a beverage hydration index; PubMed.gov; <https://www.ncbi.nlm.nih.gov/pubmed/26702122>

<sup>19</sup>Energy drinks: what's the evidence?; Food Research Collaboration; <http://foodresearch.org.uk/wp-content/uploads/2016/07/Energy-drinks-final-19-July-2016.pdf>

<sup>20</sup>British Journal of Nutrition; July 2007, 98(1):173-80 <https://www.ncbi.nlm.nih.gov/pubmed/17459189>

## Milk and Sugar

Today nearly a third of children aged 2-15 years are overweight or obese and younger generations are becoming obese at earlier ages<sup>21</sup>. Reducing sugar consumption, as part of an overall strategy to cut obesity levels, has become a central plank of Government policy. In this context, the sugar in milk is not deemed to be unhealthy or defined as a 'free sugar' and so the drink looks set to become increasingly vital as a healthy drink.

The Government recommends that children should have less sugar than adults – no more than 19g a day for children aged 4-6 years old (5 sugar cubes), and no more than 24g (6 sugar cubes) for children aged 7-10 years old<sup>22</sup>. Health bodies recommend that the sugars occurring naturally in foods such as fresh milk and fruit do not need to be avoided and NHS guidance says 'food containing lots of fruit or milk will be a healthier choice than one that contains lots of free sugars.'

It is important to keep a balanced approach too. Not all children are obese or overweight and young children need a nutritionally dense diet to fuel growth and activity, particularly as the Government's Childhood Obesity Plan for Action, published in August 2016, states children need to be doing at least thirty minutes of sport and physical activity a day in schools. It also

pledges to introduce a new voluntary healthy rating scheme for primary schools<sup>23</sup>, to recognise and encourage their contribution to preventing obesity by helping children to eat better and move more. This scheme will be taken into account during Ofsted inspections.

### CHILDREN AGED 7-10 YEARS NEED 550MG CALCIUM PER DAY TO MEET THEIR NEEDS.

Recommended daily portion sizes for milk and dairy foods to meet calcium needs



243mg

150g plain low-fat yoghurt

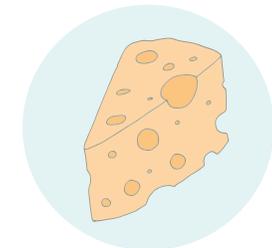
+



186mg

150ml semi-skimmed milk

+



148mg

20g hard cheese

TOTAL = 577MG CALCIUM

<sup>21</sup>Childhood Obesity 2016 Report

<sup>22</sup><http://www.nhs.uk/Livewell/Goodfood/Pages/sugars.aspx>

<sup>23</sup>Childhood obesity: A plan for Action; Department of Health; [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/546588/Childhood\\_obesity\\_2016\\_\\_2\\_\\_acc.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/546588/Childhood_obesity_2016__2__acc.pdf)



# GOVERNMENT FUNDING FOR SCHOOL MILK

It makes sense for the Government to get behind the UK dairy industry and take a fresh look at milk. The UK is one of the five largest milk producing European member states which produce 62% of all milk in the 28 European Union countries (the other top producers being Germany, France, Netherlands and Poland). We have the third highest milk consumption per capita in Europe, behind Finland and Ireland<sup>24</sup>. Yet the UK only claims a fraction of its EU milk subsidy allowance.

## Free milk for the under-5s

For the health reasons outlined above, public policy is aimed at ensuring nursery-age children consume milk, but it differs across the UK.

Since the 1940s, the Department of Health has operated the Nursery Milk scheme, which supplies free school milk to around 1.5 million children under five years old in over 50,000 childcare settings<sup>25</sup>. In December 2015 the Government reimbursed 28 million one-third pint portions of school milk by the Nursery Milk Scheme which equates to roughly 1.9 million cartons a day<sup>26</sup>.

In Wales, this scheme is topped up by funding from the Welsh Assembly, allowing Foundation Phase children from 3-7 years old to receive free milk<sup>27</sup>.

## European Union funding

Ofsted-registered schools are currently able to take advantage of the EU's School Milk Subsidy Scheme, which aims to encourage children across the EU to develop a lifelong habit of consuming milk and milk products<sup>28</sup>. As of January 2017, that subsidy sat at approximately 3p per 1/3 pint portion, rising to just under 4p for primary school pupils thanks to a Defra top-up<sup>29</sup>. That works out at just under £40 a week for a primary school with 200 pupils.

## Milk provision within schools could undergo significant changes in the coming years

The UK's impending exit from the European Union will halt the UK's access to the EU School Milk Subsidy. The UK Government has committed to match any shortfall up to 2020<sup>30</sup> but the longer-term prospects for the subsidy are unclear. The same goes for the Free Nursery School Milk scheme which may be vulnerable to budget shifts.

At the same time the Obesity Strategy<sup>31</sup>, published in August 2016, highlighted the important contribution that milk can make to a healthy, balanced diet and milk products containing at least 75%

<sup>24</sup>Evaluation of the European school milk scheme; European Commission; [http://ec.europa.eu/agriculture/evaluation/market-and-income-reports/2013/school-milk-scheme/fulltext\\_en.pdf](http://ec.europa.eu/agriculture/evaluation/market-and-income-reports/2013/school-milk-scheme/fulltext_en.pdf)

<sup>25</sup>Next steps for nursery milk; Department of Health; [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/298196/Nursery\\_Milk\\_Response..pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/298196/Nursery_Milk_Response..pdf)

<sup>26</sup>House of Commons Written Answer; <http://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2016-01-06/21271/>

<sup>27</sup>Eligibility for the school milk subsidy scheme; Rural Payments Agency; <https://www.gov.uk/guidance/eligibility-for-the-school-milk-subsidy-scheme>

<sup>28</sup>The Requirements for School Food Regulations 2014; <http://www.legislation.gov.uk/uksi/2014/1603/contents/made>

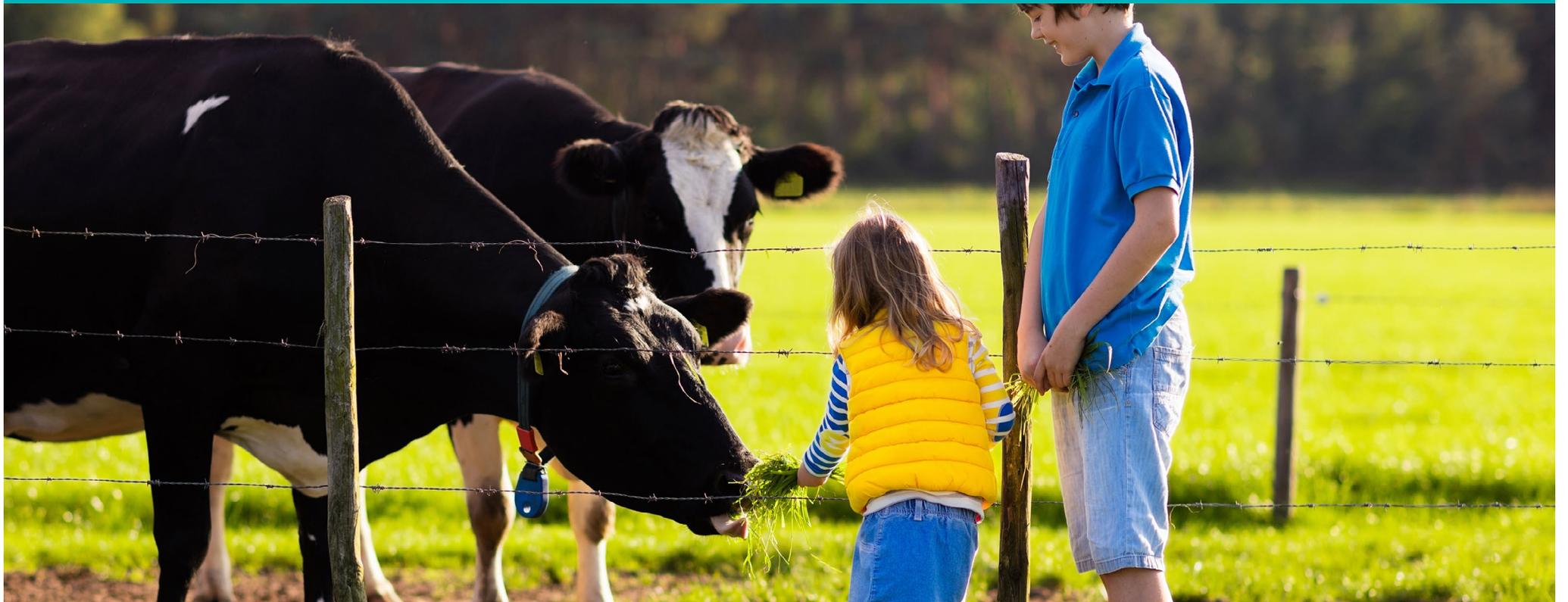
<sup>29</sup>School milk subsidy rates 2016/17; [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/582055/Annex\\_1\\_\\_school\\_milk\\_rates\\_January\\_.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/582055/Annex_1__school_milk_rates_January_.pdf)

<sup>30</sup>Chancellor Philip Hammond guarantees EU funding beyond date UK leaves the EU; GOV.UK; <https://www.gov.uk/government/news/chancellor-philip-hammond-guarantees-eu-funding-beyond-date-uk-leaves-the-eu>

<sup>31</sup>Childhood obesity: A plan for action; Department of Health



The UK currently claims just £3.5 million a year from the €68 million EU milk scheme, although our uptake may be lower due to the UK's Nursery Milk Scheme<sup>32</sup>.



<sup>32</sup>House of Commons Written Answer September 2016; <http://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2016-07-20/43596>

milk have been excluded from the proposed soft drinks industry levy<sup>33</sup>.

Measures outlined in the Childhood Obesity strategy, will lead to renewed focus on schools' approach to encouraging healthy eating. Each year, £10 million of that levy has been committed to the provision of healthy breakfast clubs at schools, and the Government has announced plans to rate schools' contribution to preventing obesity during Ofsted inspections and to update School Food Standards to reflect new advice on sugar and nutrition<sup>34</sup>. Put together, these developments point the way towards a fresh opportunity for school milk.

## 1 RECOGNISE THE VALUE AND IMPORTANCE PLACED ON MILK IN HELPING CHILDREN HAVE HEALTHIER DIETS BY GUARANTEEING ITS FUTURE

There is overwhelming support for free school milk with 89% of parents saying all children in Reception should be eligible for free school milk, even if they are over the age of five and 93% of

teachers agree. The Nursery Milk Scheme needs to work better for Reception-age children in England and Scotland. Unlike Wales where free milk is given to children up to age seven, in England and Scotland they lose free milk as soon as they turn five, regardless of when their birthday is in the school year.

The situation makes life more complicated for teachers, knowing who to distribute free milk to, and for parents who face extra paperwork and costs, when other parents in the same year do not. Most importantly it increases the risk that five year olds' nutritional needs are not met and that many can feel left out as their peers continue to have access to the free milk and they no longer do so. In fact, 75% of parents and 82% of teachers said that they believe all children of primary school age should have access to fully subsidised free school milk.

This highlights the overwhelming support of not only maintaining the current Nursery School Milk Scheme, but a continuation, if not an extension of the Subsidised Milk Scheme. Half of teachers (48%) even went further to say they think all senior school children should receive fully subsidised free milk.



*“The NFU continues to lobby to improve access to high quality, nutritious British dairy products for children in schools. School milk is important to dairy farmers not only because it provides our children with beneficial nutrients such as calcium, iron and multiple vitamins, but also because it can help to shape the consumption trends of the future and we are acutely aware that young people are eating fewer dairy products. Following the Brexit vote, we have been clear that it is vital any domestic agricultural policy recognises as we do, the importance of school milk for nutrition and developing early consumption habits.”*

- Michael Oakes,  
NFU Dairy Board Chairman

<sup>33</sup>Soft Drinks Industry Levy consultation; HM Treasury, HM Revenue & Customs; [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/546286/Soft\\_Drinks\\_Industry\\_Levy-consultation.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/546286/Soft_Drinks_Industry_Levy-consultation.pdf)

<sup>34</sup>Childhood obesity: A plan for action; Department of Health

# MIXED MILK MESSAGES

NHS and Public Health England do not currently offer guidance on how much milk children over three years old should drink.

NHS Choices advises on how to limit fat content from milk suggesting it is a 'good idea to go for lower-fat milk' after the age of two, when children can gradually move to semi-skimmed milk as a drink<sup>35</sup>. However, the Children's Food Trust advises children under five should avoid skimmed or semi-skimmed milk, as it does not provide enough energy<sup>36</sup>. Recent changes to Public Health England's Eatwell Guide, used in schools to educate children about the contents of a healthy diet, have led to some confusion in the discussion around milk, by cutting recommended dairy intake by half<sup>37</sup> to control the intake of higher fat dairy based products as opposed to lower fat milks.

Parents, teachers and schools would benefit from receiving a consistent and clear message on the benefits of milk, what type of milk to drink for what age and in what volumes.

## Guidance for schools

In England, the new revised School Food Standards which came

into effect on 1st January 2015 sent a clear message from the Government that milk is core to schools' healthy eating programmes. Maintained schools, academies and free schools in England are expected to make skimmed or semi-skimmed milk available to pupils throughout the school day<sup>38</sup>. Milk is one of the few drinks allowed to be sold in schools and it is one of the only drinks other than water, that Children's Food Trust guidelines recommend children consume regularly<sup>39</sup>. The same is true in both Scotland and Wales, where it is only lower-fat milk and water that are not subject to restrictions on availability<sup>40 41</sup>.

Amid these conflicting messages and complex regulation, primary schools are not always consistently making milk available to children. 30% of teachers say their school is not making low fat milk available at least once a day, as is recommended within the School Food Standards. Only 10% of nursery teachers and 6% of reception teachers said all their pupils drink milk every day.



<sup>35</sup>Milk and dairy in your diet; NHS Choices; <http://www.nhs.uk/Livewell/Goodfood/Pages/milk-dairy-foods.aspx>

<sup>36</sup>Eat better start better: Voluntary food and drink guidelines for early years settings in England – A practical guide; Children's Food Trust; [http://media.childrensfoodtrust.org.uk/2015/06/CFT\\_Early\\_Years\\_Guide\\_Interactive\\_Sept-12.pdf](http://media.childrensfoodtrust.org.uk/2015/06/CFT_Early_Years_Guide_Interactive_Sept-12.pdf)

<sup>37</sup>Nutritionists say 'baffling' official guidance to halve dairy food intake puts public health at risk, The Telegraph, 25.03.16; <http://www.telegraph.co.uk/news/2016/03/26/nutritionists-say-baffling-official-guidance-to-halve-dairy-food/>

<sup>38</sup>The Requirements for School Food Regulations 2014, <http://www.legislation.gov.uk/ukksi/2014/1603/contents/made>

<sup>39</sup>Eat better start better; Children's Food Trust

<sup>40</sup><http://www.gov.scot/Resource/Doc/238187/0065394.pdf>

<sup>41</sup>Healthy Eating in Schools A guide to implementing the nutritional requirements for food and drink in schools (Scotland) regulations 2008; Scottish Government; <http://www.legislation.gov.uk/wsi/2013/1984/made>

# CHILDREN'S PERCEPTIONS SCHOOL MILK

Despite the high satisfaction levels about milk when it is being provided and about the nutritional benefits of milk, many children are not drinking school milk. 27% of parents of 3-5 year olds say that their children are not drinking it at school, rising to almost a third of 6-8 year olds (35%) and 65% of older children aged 9-11 not drinking milk at school.

Speaking to over 200 7-9 year olds in four primary schools in Warwickshire revealed that a perceived difference in taste between milk at home and milk at school can deter children from school milk. This may be a result of a lack of refrigeration in some schools or more likely the type of milk on offer. Some children said they drink 'green top or red top' milk at home as one reason for not drinking milk at school, where they were not sure of the type of milk served but that it tasted 'different'; others describe school milk as 'too heavy' or 'too creamy' or simply as having a different texture to milk available at home.

Only 43 of the 214 primary school children we spoke to in Warwickshire drink milk at school. Reasons given by children for not drinking milk at school, included not enjoying the taste, temperature and the difference in type of milk between milk at

home and milk at school; a feeling that milk is too filling to accompany meals; and not being allowed to drink milk at school due to it costing too much.

Schools appear to play a key role in raising awareness among children of the importance of healthy drinks. Of the four Warwickshire schools we visited, the school with the largest number of children listing healthy drinks such as water, milk and juice among their favourites was also the school most proactively encouraging healthy eating, including healthy break time.





“In my experience, parents don’t want to pay for school milk. When our school has leftover milk from the infants and we give it out to the older children, they always want to drink it. We are a school that encourages healthy eating: we have healthy break time and don’t allow crisps or fizzy drinks to be consumed on school premises. We sell little cartons of orange juice at break and at lunch milk is served in a cup with the option of a milkshake through the County Caterers. Any initiative that improves the diet of children will benefit the working school day and enrich pupils’ lives.”

*Christine Browne,  
Headteacher, Wheelwright Lane Primary School,  
Warwickshire*



# HEALTHY EATING & MILK WORKSHOPS

## 2 ENCOURAGE SCHOOLS TO MAKE MILK AVAILABLE THROUGHOUT THE SCHOOL DAY

As policymakers in England and Scotland prepare to revise the relevant regulations in their countries, we recommend they consider the policies and best practice advice of stakeholders with experience of raising levels of milk consumption in schools.

For example, the School and Nursery Milk Alliance has found that uptake is more likely if milk is:

- Provided as a mid-morning snack. Milk's high satiety effect means it is more suitable as a refreshing mid-morning snack, which can keep kids going until lunchtime, than a drink provided with lunch, which can leave them feeling too full.
- Chilled, to make it taste nicer and therefore more appealing to children. Many suppliers participating in the Nursery Milk scheme offer schools free fridges which can help with this.
- Appropriately packaged. Some schools report problems with the time and hassle associated with distributing pouring milk and cleaning up afterwards. For these schools, single-serve cartons in 189ml (1/3rd of a pint) can provide a simpler and less time consuming option.





Policymakers should also examine ways they can encourage and support schools in complying with the relevant regulations. For example, the regulation in England states that lower fat milk must be available to drink at least once a day during school hours, but the data above indicates that this is not necessarily adhered to.

Without creating new administrative burdens, schools should be encouraged to check and record on a voluntary basis that milk is being offered and consumed daily as part of their ongoing self-evaluation. In the medium term, this would provide a route towards assessing schools on this as part of the new healthy eating inspections by Ofsted, due to start September 2017, and Education Scotland inspections through its Quality Indicators.

*“Providing chilled milk in individual cartons during the mid-morning break is the best way for schools to meet the obligations set out in the School Food Standards. This helps ensure that milk is provided in a way which appeals to school children, who are able to enjoy a nutritious and tasty drink to keep them going until lunch.”*

– Dr Hilary Jones,  
Spokesperson for the School &  
Nursery Milk Alliance



# PERFORMANCE OF SCHOOL MILK SCHEMES

The research shows clearly that parents whose children drink school milk have an overwhelmingly positive view of it. Over 90% of parents say their children are happy with every aspect of school milk including the choice, price, packaging and quantity.

They do however have suggestions for how milk and 'milk time' could be improved. 1 in 4 (24%) parents would like to link milk time to story time and around 1 in 5 want it linked to an educational activity (18%). Teachers echo this sentiment, with 38% saying they either would like to see more educational resources about the benefits of milk or that milk time should be linked to an educational activity. Teachers have also suggested a number of other ways milk time could be improved. Some would want more recycling bins (38%), others think more choice of different types of milk such as dairy alternatives (26%) would help. A quarter would like milk to be less messy and only given out on demand (25%).

kids in their class drinking milk every day. Only 10% of nursery teachers and 6% of reception teachers said all their pupils drink milk every day whereas just over a third of teachers say less than half of children in their class do.

Clearer guidance is needed about recommended levels of intake as this would help build awareness amongst teachers and parents of the nutritional benefits of drinking milk daily. Recent changes to the Eatwell Guide have resulted in questions around recommended dairy intake. The proportion for dairy products on the guide is less than in previous years, however milk is listed as a recommended drink.

We recommend ensuring all nurseries and schools are communicating to parents, kids and teachers about the recommended types of milk, daily portion sizes and benefits of milk and information for parents to improve awareness about their right to ask for free or subsidised milk and how they might easily be able to secure this for their children. This could be via SMS, the school website or newsletter.

## 3 PROMOTE EDUCATION ENSURING ALL NURSERIES AND SCHOOLS ARE COMMUNICATING TO PARENTS, CHILDREN AND TEACHERS ABOUT THE BENEFITS OF MILK

Consistency in access to school milk is much lower than expected. Reception and nursery teachers are highly unlikely to have all the

# Cool Milk

*"To make the most of the free and subsidised milk available to children, it's important to provide parents with concise and easy-to-understand information on the benefits of milk, exactly what their child is entitled to, and how they can claim. Given the vital nutritional support milk provides to children, it's essential for the Government to offer clear and consistent messages which don't lead to confusion."*



The main reason parents say that children are not drinking milk in school is they were unaware their children are eligible for free or subsidised milk (28%). Secondly, that the school does not offer them the opportunity to choose milk for their children. Clearly it is a lack of parental awareness of milk availability and subsidies that is holding back uptake.



# MÜLLER MILK & INGREDIENTS: DELIVERING ENGAGING, ON-PACK COMMUNICATIONS

The power of engaging packaging cannot be underestimated. It is not only supposed to protect the product inside, but it is the vehicle by which you can communicate with your audience.

## Labelling & Consumer Education

School and Nursery milk is a fundamental cornerstone of the healthy eating programmes both locally and across Europe due to the rich array of nutrients that milk offers.

Availability does not guarantee children will drink milk however and exciting packaging design can make a difference.

Just like many brands employ the use of licenced characters to engage kids in choosing their product, this approach can be taken with school milk alongside numerous other promotional mechanics.

This approach is taken by Müller Milk & Ingredients, the largest supplier of school milk across the UK. They use a series of owl characters on brightly coloured packs, with an array of jokes and fun messages to draw kids in and get them excited about drinking milk and help them be more environmentally aware in recycling their cartons.

To support the launch of their owl packs in 2016, the introductory packs carried a fortnightly prize draw competition in partnership with Walker Books, which drove further engagement with kids and schools alike.



# CREDITON DAIRY – OFFERING CHILDREN CHOICE

Crediton Dairy is one of the UK's leading dairy drinks businesses. Its products, ranging from customer specific own-label dairy drinks to its own Dairy Pride and Moo brands, can be found in retail stores and food service organisations across the country.

The latest additions to this range of products are the Moo Milk milkshakes in 330ml Tetra Prisma® Aseptic cartons, available in four flavours: strawberry, banana, chocolate and chocolate fudge cake. Crucially, these products contain less than 5% added sugar and meet School Food Standards guidelines, presenting a nutritious drink or healthier dessert option for children on school menus.

From the qualitative research undertaken in Warwickshire primary schools, 40% of 7-9 year olds said they liked drinking flavoured milk, demonstrating that it is another route to encourage children to drink milk in an engaging format. Crediton Dairy has recently launched a new, reformulated recipe across the entire Moo range of flavoured milks, reducing the added sugar content by 30% - equivalent to 27 million teaspoons of sugar a year, based on volumes sold in 2015.

The new recipe uses a new kind of natural flavouring to enhance the sweetness of the drink without the need to add artificial sweeteners.

This is just the first step for Crediton Dairy. It will continue to look at ways to reduce sugar content in other branded and own-label flavoured milks to provide even healthier, great-tasting products for its customers and consumers. Moo Milk's stand-out pack designs are helping to drive further interest in the flavoured milk category to appeal to both children and potentially new and older consumers.

*"Meeting the needs of the consumers and delivering low-sugar dairy drinks without compromising on taste is one of our key goals."*

*- Bethan Parsley,  
NPD Manager, Crediton Dairy*



# ABOUT TETRA PAK

Tetra Pak is the world's leading food processing and packaging solutions company. Working closely with our customers and suppliers, we provide safe, innovative and environmentally sound products that each day meet the needs of hundreds of millions of people in more than 175 countries around the world. With almost 23,000 employees based in over 82 countries, we believe in responsible industry leadership and a sustainable approach to business. Our motto, "PROTECTS WHAT'S GOOD™," reflects our vision to make food safe and available, everywhere.

In 2015, 9.1 billion Tetra Pak packages with milk or other nutritious drinks reached more than 70 million children in schools in 56 countries as part of a school feeding programme.

Packaging plays a significant role in getting vital nutrients to these children safely every day. By processing the milk and then packing it in a way that helps avoid food waste, the goodness of milk can be protected inside, without the need for preservatives or refrigeration. Milk can be made available in this way to children everywhere, even in areas where starvation and malnourishment is prevalent.

Cartons are one of the most commonly used packaging formats that school milk is delivered because they can:

- be transported efficiently
- deliver clearly portioned amounts of milk, with little fuss or mess
- be used for both long life ambient and chilled milk, keeping out the light and protecting the vitamins and natural goodness
- carry educational and entertaining messages and games to engage children in milk consumption
- be fully recycled and are made mainly from renewable materials, which is key in a world of depleting natural resources. Cartons are repeatedly shown to be a low carbon packaging choice across the world.

In the UK, over 90% of Local Authorities collect cartons for recycling and 64% of local authorities collect cartons by the kerbside.

Milk contains a rich array of vitamins and minerals that can degrade under a number of different conditions, particularly in light.

The most sensitive nutrient to light in milk is riboflavin (vitamin B2). Protecting the Vitamin B2 is important as it helps keep skin, eyes, the nervous system and mucous membranes healthy and supports production of steroid hormones and red blood cells. It may also help the body absorb iron from the food we eat. When exposed it causes chemical compounds to form that are sensitive to oxygen. This leads to the oxidation of proteins and milk fat, leading to an 'off taste' and nutrients being lost.

In most cases, packages for school milk programmes are specially designed and clearly marked "Not for sale or commercial use", reducing the risk of them being sold on the commercial market. Packages can also be used to carry educational and entertaining messages and games; programme implementers can draw on our vast design portfolio for inspiration.

For more information: <http://www.tetrapak.com/sustainability/food-availability/school-feeding-programmes>

# ABOUT THE RESEARCH

Tetra Pak commissioned an independent research agency, Opinion Matters, to conduct a quantitative survey of attitudes to school milk and milk time amongst:

1,013 parents in England, Wales and Scotland of 3-11 year olds; of which 473 are parents of five and under, and 741 are parents of 6-11 year olds. Overall, 555 take school milk, 395 do not take school milk and 63 do not know.

500 nursery or reception teachers across the UK (excl NI), from a mix of local authority run primary schools (34%), nurseries linked to schools (18%), free schools (14%), academies (12%) and private nurseries (7%) or independent schools (5%) were surveyed.

The research was conducted between June and July 2016.



MAKING MORE OF MILK

