WN *Big Food Watch*

World Nutrition **Volume 5, Number 5, May 2014**

Journal of the World Public Health Nutrition Association
Published monthly at www.wphna.org/worldnutrition/

Nestlé. Ice-cream. Market domination
The BenNaNa master-plan

BIG FOOD WATCH

Access January 2011 news story on Nestlé Institute of Health Sciences here
Access September 2013 Big Food Watch on Nestlé shared value here
Access April Big Food Watch on obesity, diabetes in China here

Our Big Food Watch team reports:

Nestlé's Peelin'Pops, which have other names throughout the world, is an ice-cream product with a skin of hard edible gel that peels like a banana. It is part of Nestlé's plan for global dominance

This is a story of how what at first seemed merely a novelty fun snack product, is actually a key to the global strategy of the world's biggest manufacturer of ultra-processed products (1). Read on! Browsing through a recent 'Creating Shared Value' report (2,3) issued by Nestlé, which positions itself boldly as 'the world's leading nutrition, health and wellness company', we came across the following pledges by Nestlé chairman Peter Brabeck-Letmathe and chief executive Paul Bulcke:

> We have set our actions… in the context of five key nutrition challenges: advancing science to address global nutrition issues; helping mothers give children the best start in

> life; helping families to meet their nutritional needs; helping to meet the nutritional needs of people in emerging markets; and helping to meet the needs of older people and those with other specific nutritional requirements

Also, a Nestlé 'consumer communication principle' (4) signed by Paul Bulcke, states:

> Advertising for children from 6 to 12 is to be restricted to products with a nutritional profile which helps children achieve a healthy, balanced diet, including clear limits for such ingredients as sugar, salt and fat.

How are these pledges, challenges and principles addressed by a Nestlé ice-cream product, which in the US is called Peelin'Pops™ and in Canada, also PelPops™? A zoom around the internet showed that the product was first launched in 2011 in Thailand as Eskimo Monkey™, in 2012 in China as BenNaNa™, in 2013 in Brazil as Pegapop™, and in many other tropical countries. The roll-out in temperate countries came later. As seen above, it is a sort-of ice-cream sort-of popiscle on a stick. It also has an outer layer of edible hard gel that comes in various flavours. The general styling imitates a banana. The Peelin'Pops version comes in packets of eight, positioned by Nestlé as 'a summer staple and a fun, cost-effective alternative to the ice cream truck'. The launch price is discounted at roughly the same as for other heavily advertised ice-cream products. Once established, the price is likely to rise.

Peelin' Pops™, or PelPop™s, or Eskimo Monkey™, or BenNaNa™, or Pegapop™, do face one of Nestlé's scientific challenges (5). This has been how to stop ice-cream melting in the sun. But after collaboration with the Institute of Snow and Avalanche Research in Switzerland, using x-ray tomography, the answer is that this can't be done. 'Ice cream is an inherently unstable substance' reports Hans Jörg Limbach, a scientist at the Nestlé Research Centre, also in Switzerland (6). 'At Nestlé we work extremely hard on our ice cream recipes to ensure their stability and quality… but we are always looking for ways to make them even more robust'. The search for the ice-cream Viagra continues. Results have been published in the journal *Soft Matter*.

So yes, Paul Bulcke and Peter Brabeck-Latmathe's first pledge has been addressed. Nestlé is advancing science, as the *Soft Matter* paper shows. But ice-cream melts, as does snow on the Alps in the summer. If the boys in the Nestlé Research Centre succeeded in making ice-cream that kept its shape and texture in the sun, they might be on the way to preventing avalanches. Nobel Prize stuff!

Meanwhile, the Nestlé ice-cream group was given a big budget to crack the problem. Colleagues perhaps in the brainstorm department, then had five related ideas that help to explain why Nestlé now turns over around $US 100 billion (billion) a year and has been listed by *Fortune* magazine as the world's most profitable corporation, sustained by 'double digit' (more than 10%) annual growth in Asia. Idea #1 was to encase the sort-of popsicle in a miniature thermos flask. Idea #2 was to make the sort-of flask edible. Idea #3, was to make the whole thing look like a sort-of banana. Idea #4, was to promote it with a mascot of a loveable monkey. Awesome!

Rolling out in Thailand

Nestlé states that its Eskimo Monkey peelable ice-cream product meets its Nutritional Foundation requirements because (as claimed) of being low in fat and sugar and containing no artificial colours

Idea #5, was to have the initial experimental roll-out (or peel-down) in a tropical country, not too big, not too small, with a substantial middle class whose kids are electronically networked. So lo! In Thailand as from 2011 the Eskimo Monkey swung from branch to branch (see above). Nestlé media releases tell the story (7,8). 'The launch was aligned with the *Eat Smart Play Hard* campaign in Thailand – with the endorsement of the Thai Ministry of Public Health – which focused on children aged between 6-12 years old to encourage more health-conscious food choices'.

Hervé Cathelin, Global Head of Nestlé Ice Cream, said: 'When you work in ice cream you need to think like a kid. …In Nestlé ice cream it is important to achieve our objective of developing products that not only appeal to kids, but also incorporates the Nestlé nutritional foundation'. Nestlé explained its claim of nutritional quality. 'As well as being fun, new and exciting, it meets the Nestlé Nutritional Foundation requirements, containing no artificial colourings, being low in fat and low in sugar. The ice cream snack supports Nestlé's Nutrition, Health and Wellness strategic drive' (7,8).

Thaweesap Luangnateethep, Nestlé's nutritionist in Thailand, explained (8): 'Active children need high calories. Kids may not get enough nutrients from eating three meals a day. Sweets and snacks are necessary because energetic children need about 1,600 kilocalories each day. Snacks help children to obtain the essential nutrients needed. Children are in the growth developmental stage hence it is natural for them to be active physically'.

Then the tone changed: 'Most children love to eat sweets and snacks, and often they get more energy than is necessary. Excessive daily intake of kilocalories increases the risk of obesity, now affecting a large number of Thai children. Childhood obesity is on the rise and has a damaging impact on children's health in the long term. It is very important to ensure proper daily nutrition so that they receive adequate intake of energy necessary for learning and growing healthily.' So in Thailand, the Bulcke + Brabeck-Letmathe pledges 3, 4 and 5 have apparently been met.

The vision of Shanghai

BenNaNa in China. A report from Beijing says that it is the new craze for children in the city and throughout cities all over the country, despite the fact that in Chinese 'ben' means 'stupid'.

In China, Nestlé runs a Healthy Kids programme (9). As explained by *Nestlé head of research and development* Johannes Baensch on the 100th anniversary of Nestlé in China, and the 10th anniversary of its R and D centre in Shanghai (10):

> Nestlé's vision for R&D Shanghai was [as] a place for understanding Chinese culture, exchanging and transferring culinary ideas, as well as for making advances in nutrition and food science – both within our own R&D network, and externally with Chinese universities and research institutions. Over the last 10 years R&D Shanghai has strengthened its collaborations with the academic world, especially in China. We are privileged to share today's event with our distinguished guests from the Shanghai Institute of Technology, China Eastern University of Technology, and Zhejiang Sci-Tech University… Like all our R&D centres, R&D Shanghai's expertise also extends to ice-cream. Experts from this Centre were behind the making of Eskimo Monkey, the world's first peelable ice-cream, which is now being rolled out worldwide.
>
> At Nestlé, we believe that education is essential for helping children to understand the importance of nutrition and physical activity for lifelong health. Globally, Nestlé is sponsoring nutrition and physical education programmes that reach 10 million school-age children. These programmes are designed and implemented in collaboration with local nutrition and health experts. In China we have a Healthy Kids programme in over 60 schools, in collaboration with the Chinese Nutrition Society.

More science and nutrition! Thus, as with the avalanche research in Switzerland, the seals of approval from the Chinese Nutrition Society, and partnerships with various Chinese science and technology universities, apparently meet the Bulcke +Brabeck-Letmathe first pledge. Also, one key food science breakthrough is that ice-cream products that do not melt can be sold not just in shops with freezers, but everywhere. This multiplies their availability and sales. Executive bonuses all round! This point was not mentioned in the promotional literature we accessed.

Box 1
BenNaNa and cracking the FOMO cookie

Here is an extract from two accounts of the BenNaNa roll-out in China (11,12)

The fast-moving consumer goods market is, by its very nature, fast-paced and highly competitive to begin with. Now imagine that you are an ice cream manufacturer. When it comes to China, the summer confectionery category can be an incredibly tough cookie to crack. Nobody has learned this lesson harder than the folks at Nestlé, who have struggled in the summer ice cream stakes for years. Nestlé had to pull out all the stops to make the summer of 2012 worth their while and conceived a brand new product; an ice cream stick with a fully peelable, edible yellow jelly skin, called the BenNaNa.

Novelty was a key component in crafting a marketing strategy; the kitsch appeal of the BenNaNa enabled Nestlé to tap into the fad-driven, trend-seeking 'fear of missing out' (FOMO) culture that permeates consumer behaviour in 18-31 year olds. The BenNaNa was, after all, the very first product of its kind – hipsters worth their salt would want in before it went mainstream. And go mainstream it did.

The team invested in a microsite and a Sina Weibo profile, paid banner advertising, and PR content. The central campaign itself consisted of two parts. A microsite based around the concept of a magical island (complete with jungle, naturally) invited users in with the playful strapline 'discover the magic of the world's first peelable ice cream'. And then there was the official corporate Sina Weibo account, which made monkey business the order of the day, posting fun, original content and hashtags.

Focusing on Sina Weibo proved to be an exceptionally shrewd move. Food is one of the most discussed topics on Chinese social media, and 70% of food-related updates in China are posted on the popular micro-blogging platform. By implementing a social-centric strategy that positioned BenNaNa as the must-have treat of the summer, marketers drummed up unprecedented buzz. Within three months of the campaign's launch BenNaNa became Nestlé's top selling ice cream product, achieving 150% of its full 2012 sales forecast. It was the number one trending topic on Sina Weibo two weeks after launch and featured seven times in Weibo's top ten searches in China. Overall, 10 million visitors submitted 4.6 million posts. This was the kind of response normally only achieved by major celebrities and it created some very happy Nestlé executives.

Low fat and low sugar ice-cream ?

But a puzzle remains, from the account of Eskimo Monkey and the other versions of the product, which we assume have much the same ingredients. How can ice-cream be low in fat and low in sugar? After all, the dietary energy in ice-cream is normally supplied mostly by sugar and fat. And indeed, here are the ingredients of Peelin'Pops (13):

> Water, sugar, modified milk ingredients, glucose, milk ingredients, coconut oil, citric acid, carrageenan, carob bean gum, mono- and diglycerides, cellulose gum, propylene glycol, monostearate, monosodium phosphate, artificial flavor, color.

We have also found a nutrition label of PelPops, in English and French:

Nutrition Facts
Valeur nutritive
Per 1 bar (50 ml) / Pour 1 barre (50 ml)

Amount / Teneur	% Daily Value / % valeur quotidienne
Calories / Calories 60	
Fat / Lipides 1 g	**2** %
Saturated / saturés 1 g + Trans / trans 0 g	**5** %
Cholesterol / Cholestérol 5 mg	
Sodium / Sodium 25 mg	**1** %
Carbohydrate / Glucides 13 g	**4** %
Fibre / Fibres 0 g	**0** %
Sugars / Sucres 10 g	
Protein / Protéines 0 g	
Vitamin A / Vitamine A	0 %
Vitamin C / Vitamine C	0 %
Calcium / Calcium	2 %
Iron / Fer	0 %

We have further found the recipe for the gel coating of the Pakistani version (14) as stated in the record of its patent (as shown in Box 2, below):

Box 2
Eat the thermos

Here is the recipe for the gel coating of Nestlé's peelable ice-cream, as stated in the record of its patent (14).

The product is produced as follows: For the two gel layers, a basic mix is prepared according to the following recipe:

Corn syrup solids 10%; Sucrose 25%; Citric acid 0.5%; Carrageenan 0.4%; Locust bean gum 0.3%; Colors, flavors 1%. Remainder is water

For the first gel layer, a first colorant is added to the basic mix, so that a first mix having a first color is obtained. For the second gel layer, a different colorant is added to the basic mix, so that a second mix having a second color is obtained. The first mix is pasteurized at 85° C for 30 seconds and filled into moulds at a mix temperature of 50 C. As already mentioned above, it is also possible to use a recipe containing in addition to a polyanionic gelling hydrocolloid, or any other gelling agent, a gelation controller or inhibitor.

In particular one of the recipes described in EP 1339290 BI or US 6548097 BI can be used. In this case the mix can be cooled down after its preparation and stored in the cooled down state. Due to the added gelation controller or inhibitor it can be kept in this state for a relatively long period of time without any degradation. Before use, the mix is reheated, additives that will trigger the gelation are added, and the mix is then processed in the same way as the mix without gelation controller or inhibitor.

The moulds containing the first gel mix are cooled in a cold brine bath until a frozen layer with a thickness of around 2 to 5 mm is formed. The remaining mix, which is still liquid, is then sucked back out of the mould. One thereby obtains a shell of edible, flexible frozen gel in the mould. In the following step, this operation is repeated with the second gel mix having a different color, so that a second shell inside the outer shell formed in the previous step is obtained. The shells are then filled with a standard vanilla ice-cream mix. A wooden stick is inserted into the product and the product is frozen completely.

A cynic might say that if a product with those ingredients and recipes meets the Nestlé Nutritional Foundation goals for being low in fat and sugar, the goals must have been devised to suit the needs of a corporation making lots of sugary and fatty products. (By the way, on the 'no artificial colourings' claim, if an additive used to colour a product is extracted from nature, or if made in a laboratory its chemical composition as measured is identical with that of a natural colour, it is not 'artificial').

Profiling a PelPop

So, back to the nutrition label for Canadian Pelpops, above. With a quick calculation, it's evident that 9 of the 60 calories of a specified 'serving' of one Pop are saturated fat, which comes to around 15 per cent, and 40 of its calories are sugars, which comes to around 65 per cent. (If 'sugars' includes lactose from milk, the number might be around 50 per cent). So what is the rationale for the low fat and low sugar claim for Peelin'Pops™, PelPops™, Eskimo Monkey™, BenNaNa™, and the other Nestlé peelable sort-of ice-cream products?

All is explained by the Nestlé guide to 'nutrient profiling' (15). Its 'daily reference values' for children aged 9-11 years are for energy, 2000 calories a day; and include fat, 65 grams; saturated fat, 20 grams (under 10 per cent); and added sugars, 50 grams (10 per cent). Values for children aged 4-8 years are a bit lower, but the general effect is much the same. So again, where does Nestlé get its low fat and sugar claims?

The answer is that Nestlé does not accept that the general 'reference values' apply to all types of product, including many Nestlé products. Take ice-cream. For this type of product Nestlé specifies, per serving, 10 per cent or less of total calories, of which 20 per cent or less from saturated fats, and 25 per cent or less from added sugars. Calculated like this, Eskimo Monkey™, PelPops™, Peelin'Pops™, BenNaNa™ and all the rest are indeed low fat and low sugar, meaning they have somewhat less sugar and fat than other ice-creams – unless a young consumer devours two or more from the eight-pack, but that is another whole ball of gel. Let's just say that measured by independent standards, all types of ice-cream contain lots of fat and sugar.

Might children imagine that when they consume a BenNaNa, or a Peelin'Pop, or a PelPop, or an Eskimo Monkey, they are consuming a product that somehow has something to do with a fruit – a banana? Or might parents think that this is a snack supplying the essential nutrients contained in fruits? Carob bean gum, mono- and diglycerides, cellulose gum, propylene glycol (a chemical sweetener), monosodium phosphate, artificial flavour, and colour, are not usually thought of as nutrients.

Peelable ice-cream does meet Paul Bulcke and Peter Brabeck-Letmathe's fifth pledge, to meet the needs of at least some older people – those who are Nestlé shareholders. Indeed, more than might be imagined from this account so far. The true significance of peelable ice-cream is that it can be seen as part of the most ambitious corporate food product strategy ever – to teach the world to snack. See Box 3.

Box 3

Nestlé global strategy

The general global strategy of all transnational food and drink product manufacturers is identical. This is to displace food systems and supplies and dietary patterns based on regular meals made from foods, with ready-to-consume ultra-processed snack products (1,16). The idea that Big Food (the transnationals) all together provides a full range of foods, is false. Moreover, transnationals are predatory. They take over national and local industries or marginalise them, or drive them out of business. The general effect on public health is disastrous, if only because in general, ultra-processed products are more energy-dense, fatty, sugary or salty than freshly prepared dishes and meals, and contain less dietary fibre and micronutrients (unless 'fortified'). There are other reasons also, such as the quasi-addictive qualities of some products, and their relentless promotion especially to children.

Nestlé is best placed of all the Big Food corporations to 'teach the world to snack' – to induce populations in all countries of all classes, to consume its branded products from birth to death. This is partly because of its scale, with currently 350,000 employees in most countries, annual turnover of around $US 100 billion, and profits of around $US 10 billion.

The main reason is the nature of Nestlé's products. It remains the biggest manufacturer of baby formula feeds, and of products for young children from weaning to around 5 years of age, and is one of the top three manufacturers of sugared ready-to-consume breakfast cereals aimed at children. For all ages, its intensely palatable products like chocolate and confectionery, maintain loyalty to all its products, labelled prominently with the Nestlé logo.

A general strategy to induce corporate brand loyalty from birth to death, accounts for Nestlé's very energetic expansion as from the early 1990s into the ice-cream market, now worth around $US 55 billion a year. From being a small player, Nestlé now makes and sells about 20 per cent of all ice-cream in the world, with Unilever in second place. Ice-cream attracts children and also, sold in individual, family-size or huge tubs, to people of all ages and households. Sales in India and China are now increasing by around 20 per cent a year. A report from the Tallinn University department of business administration (17) proposes that the corporation's overall strategy is 'taking over the global ice-cream market'.

Ice-cream can be made very cheaply, so giant manufacturers can undersell smaller competitors. It can be made with trendy ingredients and sold at eye-watering prices in chic outlets. It is made in many colours and flavours, so what is often the same product looks and tastes different. Ice-cream is sold in superstores and supermarkets, but is mostly consumed on the spot as purchased from minimarkets, convenience stores, stalls in markets, vending machines, and mobile vendors on sidewalks and beaches, or in service stations, fitness centres, schools or hospitals, and on trains, boats and planes. But the snag has always been that ice-cream melts and therefore has to be kept frozen or chilled.

Until, that is, the geniuses at the Nestlé Research Centre came up with the idea of ice-cream contained within a miniature edible thermos flask. This is why BanNaNa™, Eskimo Monkey™, PegaPops™ and all the other versions of peelable ice-cream are so valuable. They have long shelf life in all outlets without freezers. They are terrific business in the summer and in tropical countries. The power of Nestlé's image and social marketing wizards implant the product in the minds of children the world over. They are protected with trademarks and patenting of the technology. They help to fill the gap between young child and adult products. They are part of the plan to teach the world's children to snack Nestlé products every day, and to stay with the corporate brand all their lives.

Rolling out in Rio

Brazil's version, made by Garoto, owned by Nestlé, includes instructions. The social media show aimed at children gives the impression that the ice-cream does not melt in sun, which of course it does

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