



Vending **healthy** **drinks**

A GUIDE FOR SCHOOLS



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Foreword

The aim of this guidance is to help schools establish a profitable and effective healthy drinks vending scheme. The evidence for this guidance has been largely gathered from a study into drinks vending in secondary schools funded by the Food Standards Agency (FSA), supported by The Dairy Council and managed by the Health Education Trust (HET). A full copy of this report is available on the FSA or HET websites. (See appendix 1).

Vending can provide choice for pupils and can act as a tool for education about nutrition and litter control. Vending machines are not inherently evil – what matters is the type of products they contain. Healthier drinks vending can provide an extra dimension to the food service in schools, have an important and positive influence on childrens' overall diet *and* make a profit! All schools should have a source of drinking water freely available to all pupils.

Quotes from children and staff in schools who completed the FSA pilot trial and were keen to keep their machines and continue with the service –

'There will be trouble if the machine is taken away'

(Year 8 girl)

'So different now, so many kids with juice and water'

(A senior member of staff)

'It's brilliant, can get a decent drink when the canteen is closed – next thing should be food'

(A male 6th former)

'Time's precious, the new vending saves queuing just for a drink, and until now it was only coke in the vending machines.'

(A keen Year 10 football player)

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Key pointers to success

Customer involvement and criteria

- Involve pupils in discussions about food service as part of a 'whole school approach' to food and nutrition so that:
 - the food service is designed with their tastes and needs in mind
 - it supports the messages in the taught curriculum
 - they feel they are part of the decision-making process
- Set up and maintain good communications to establish a smooth and efficient operation.
- Avoid communication failures that may lead not only to frustration but also to an interrupted drinks supply, which will affect pupil satisfaction, usage and profits.

Pupil usage & access

- Take care to consider with pupils suitable protocols to maximise the benefits of vending while not compromising the usual practices and administration of the school.

Staff commitment

- Both school and caterer should recognise that vending offers an extension of the school food service and give it similar priority in terms of ensuring service continuity and reliability. This is easier to appreciate and deliver when both understand and recognise the range of substantial benefits to be gained.

Marketing & promotion

- Discuss, agree and implement a marketing and promotion strategy to:
 - popularise the scheme and maximise profits for the school, both prior to and during the running of the scheme.
 - involve pupils in the design and delivery of each part of the service created for them.

Monitoring

- Nominate specific personnel who are trained on the usefulness and importance of data collection.
- Use the proforma supplied (appendix 3, page 24) or adapt it to suit individual situations in order to ensure appropriate collection and distribution of data.



Research machine/product harmony

- Ensure a good match between the capability and characteristics of the machine and the product sourced to fill it. This is a very new approach to vending, so be aware that new machines and products will arrive to keep up with the fresh demand as industry recognises the commercial potential open to it. (Check regularly with AVA and product suppliers – see pages 15/16).

Location of machines

- In the dining area or a place very close by, to make filling/ maintaining/ supervising as easy as possible. This will ensure service continuity.

Product mix and price

- Aim for a broad range of product pricing but ensure that the products reflect pupils' tastes, their ability to pay and the opportunities offered by local producers.

Management & administration

- Ensure the machine is kept clean and well stocked at all times
- Nominate and train key catering personnel to take responsibility for duties specifically related to vending machines:
 - monitoring the operational soundness of the machine
 - filling the machine regularly and ensuring its cleanliness
- Establish a comprehensive maintenance and repair contract for the machine(s) which includes guaranteed response times.

Managing litter

- Link vending issues into your existing policy on litter and use it as a vehicle for social education.
- Provide large, attractive, secure litter bins for each vending machine, to encourage appropriate pupil behaviour.



Background

We are what we eat is a saying that's been around for years, but until recently it has had little impact on our children's eating habits. Too many children's diets do not meet the Government's dietary recommendations, being too high in fat, sugar and salt, and too low in fruit, vegetables and starchy carbohydrates. A poorly balanced diet, alongside an inactive lifestyle, are contributing factors thought to be responsible for the rapid rise in childhood obesity rates, to what are now described as epidemic proportions.

The International Obesity Task Force (IOTF) report, published June 2004¹ revealed that more than 1 in 4 English schoolchildren are overweight with 6-7% classified as obese. Applied throughout the UK, this equates to some 2.4 million children being overweight today and 700,000 obese. These figures represent a four-fold increase over the last 30 years for 7-10 year olds.

Being obese significantly increases the risks of developing 'Type 2' diabetes, heart disease, cancer and several other serious illnesses. In 2002, cases of Type 2 diabetes were reported in obese children for the first time. The IOTF report cites examples of problematic social trends that are contributing to the global obesity problem which include:

- Increased sedentary recreation.
- Greater quantities and variety of energy-dense foods.
- Rising levels of promotion and marketing of energy-dense foods.
- More frequent and widespread food purchasing opportunities.
- Increased frequency of eating occasions.
- Rising use of soft drinks to replace water e.g. in schools.

Ultimately, obesity is due to an imbalance between energy intake and energy output (exercise) and whether genetic or other medical reasons are involved. What we eat and drink will have an impact on this overall balance, especially if physical activity is low.

The Government's National Diet & Nutrition Survey of 4-18 year olds² revealed that:

- Soft drink consumption has rapidly increased in recent years, especially in children. In 1997, 75% of 4-18 year olds in the UK were consuming sugar sweetened carbonated drinks and 45% consuming low calorie drinks.
- The intake of (mainly) added sugars contributed to 16.7% of young people's energy intake, which is well above the recommendation of 11%.
- Carbonated drinks were the main source of these sugars and this is not surprising, given the abundance of soft drinks sales outlets, including vending machines in the every-day environment.

Soft drinks include all non-alcoholic, water-based flavoured drinks whether carbonated (fizzy) or still. After water they have as their main ingredients a sweetening agent, an acid and a flavour. These ingredients can include varying levels of sugar, intense sweeteners, or both; fruit juice, fruit flavourings, acidity regulators and other flavourings, colourings, preservatives, carbon dioxide and additives, such as caffeine.



'I was certain this would not work, the kids would not be interested. I was so wrong – and I couldn't be happier!'

(Catering Manager from project school)

Levels of children's soft drink consumption have stimulated research into possible effects on health and although more research is required, the following findings are cause for concern:

Soft drinks may be associated with increased body weight and risk of obesity in children^{iii, iv}.

Soft drinks are also associated with dental health problems. Drinks containing sugar will increase the risk of dental decay particularly if consumed between meals. Frequent consumption of soft drinks either sugared or sugar free has also been linked to erosion of tooth enamel through the acids present in fruit extracts or added to make the drink "fizzy".

There is growing concern that the displacement of milk-based drinks by soft drinks, hence reducing children's calcium intake, may lower bone mineral density and increase risk of bone fractures in later life.

The House of Commons Health Committee in its obesity report, published May 2004^v, highlights school vending as one of the contributory factors to the obesity epidemic, suggesting that the exposure of children to vending machines selling less healthy products will counteract any attempts by the school to teach healthy eating messages. The committee recommends that 'all schools should be required to develop school nutrition policies, in conjunction with parents and children'. Alongside this it recommends that 'Government should issue guidance to all schools strongly recommending that they do not accept sponsorship from manufacturers associated with unhealthy foods or install vending machines selling unhealthy foods'. This guidance should also 'give firm support for the replacement of existing vending machines with ones selling healthy foods and drinks'.

Schools make a significant contribution to children's intake of soft drinks with **profit** a major factor – between £10-15,000 p.a. for a medium-sized secondary school. However, the provision of a healthier drinks vending operation has demonstrable benefits for both the school and children's health, including profits which offer a valuable source of income for the school.

The results of the recent FSA pilot study on healthier drinks vending demonstrated that pupils will choose water, fruit juices and milk products even when other soft drinks vending machines are available to them. This alternative form of drinks vending is popular with pupils and schools can make a healthy profit from this type of scheme. (See FSA and Health Education Trust websites – appendix 1 – to read or download a full copy of this report.)



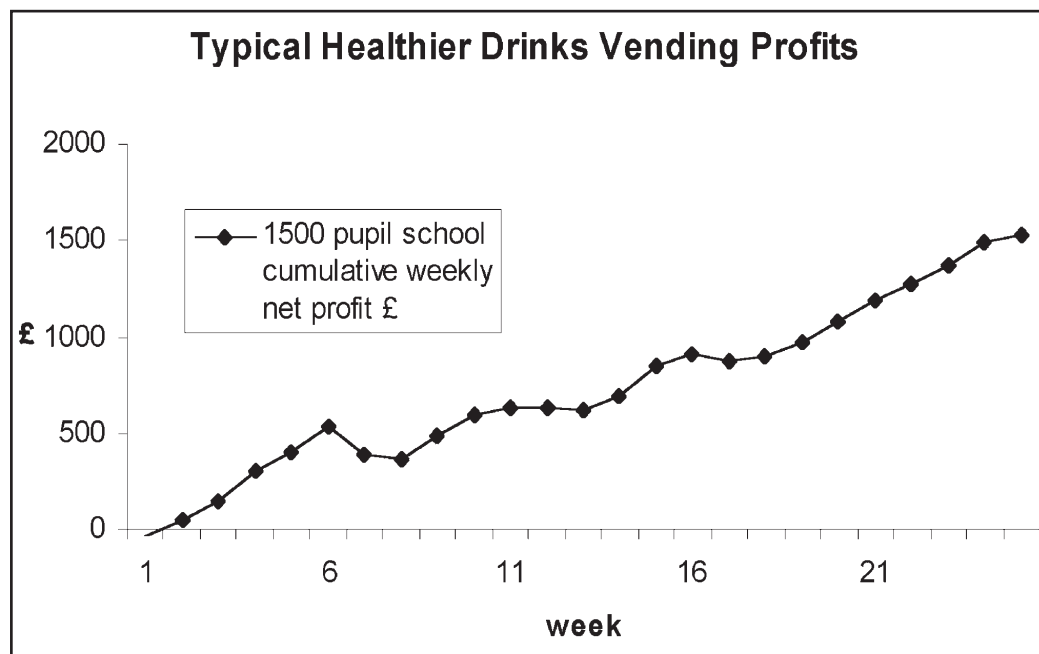
Issues of potential concern

Some or all of the issues below can be of initial concern to both school and catering contractor senior managers. All these issues and many others are addressed in the guidance to enable delivery of a successful, good practice, vending service.

NB. It is assumed in this guidance that the healthier drinks machine will be filled and supervised by the catering team in the school acting in accordance with the wishes of the school's agreed policy.

1. Will it pay?

All schools are sensitive to budget considerations and need to ensure that they are not put at risk of unexpected financial losses. Clear and categorical assurances must be secured for any vending scheme so that there will be no 'hidden' expenses or responsibilities accruing to either the school or caterers. The results of the pilot project have demonstrated that healthier drinks vending can show a good operating profit for the school, provided some simple steps are taken at the outset to avoid potential problems.



2. Can we staff it?

An effective vending scheme does require staff to fill and monitor the vending machines and keep data on sales. Additional staffing costs can be met through the profits on sales, as has been illustrated in the FSA pilot schools project. Catering managers may, in some schools, be concerned about finding additional staff hours where they are already stretched in running the existing service. This is where location of the machines becomes a key issue (see pages 9 and 13).



3. What products are both popular and suitable?

It is important to consider carefully what 'healthier' means in terms of drinks so that any efforts made by a school to introduce a healthier vending scheme are not undermined by the final selection of products that fill the machine! This is covered on page 17 in the 'suggested product' chart. This will be new territory to many contractors as well as school senior staff and they may feel worried that pupils will not take to the new vending. Will pupils purchase the products if they are not the usual 'branded' product? Will caterers be able source the products from existing suppliers? The FSA pilot study confirmed that existing suppliers are able to meet the demand for product and that pupils will purchase alternatives to their usual 'branded' product. An important factor for ensuring this is pupil involvement in product selection via the working group, a School Nutrition Action Group (SNAG) or engagement with the student council. (See 'Customer involvement and Criteria – page 10).

4. Where should we locate the machines?

Each school will have its own initial preferences for where to site machines, which may be based on issues such as space, traffic volumes, where the pupils congregate at break times and so on. **Location is one of the key issues influencing the success of profitable school vending.** It is recommended that special attention be paid to machine location, which is addressed in some depth on page 13.

5. What about litter?

Schools are particularly sensitive to the impact that an untidy site has on their reputation. Additional debris from drinks packaging is a major concern for the senior management teams. The option of providing litter bins, to be placed alongside the drinks vendor, is worth considering at the outset. The introduction of a new vending scheme may provide a useful opportunity to address the issue of litter and/or recycling for the school in general.



Healthier drinks vending – the process

Customer involvement & criteria

A fundamental priority for introducing a successful healthier drinks vending machine is commitment from the senior management of the school and the catering contractor to establish and support a working group to ensure full consultation on all aspects of the scheme, during both the commissioning phase and the operational phase. The involvement of pupil representatives is an important feature of the working group.

Involving the whole school

There is now plenty of evidence on best practice to support our recommendation for involving the whole school community when setting up healthier drinks vending. In order to achieve healthy profits, all who have access to the school site are potential customers, so their needs are worth considering. The working group should be based on the School Nutrition Action Group (SNAG) concept^{vi} and have representation from all key stakeholders:

- School management
- Catering staff
- Curriculum staff
- Parent/governor
- Student council

Pupil involvement/ consultation

The importance of involving pupils themselves relates both to educational and commercial ‘best practice’. It is appropriate to encourage pupils to influence decisions relating to services provided specifically for their use in school, and it makes for good business practice to consult and listen to the ‘customers’ view about how the service is set up, located and managed. Recruiting pupils through Schools Nutrition Action Groups (SNAGs) or the schools council helps to give a range of ages, opinions and tastes.

Key pointers: customer involvement & criteria

Set up and maintain good communications to establish a smooth and efficient operation.

Any communications failures may lead not only to frustration but also to an interrupted drinks supply, which will affect pupil satisfaction, usage and profits.

Involve pupils in the discussion about the food service as part of a ‘whole school approach’ to food and nutrition so that:

- The food service is designed with their tastes and needs in mind.
- It supports the messages in the taught curriculum.
- They feel they are part of the decision making process.



Key questions for the working group to consider

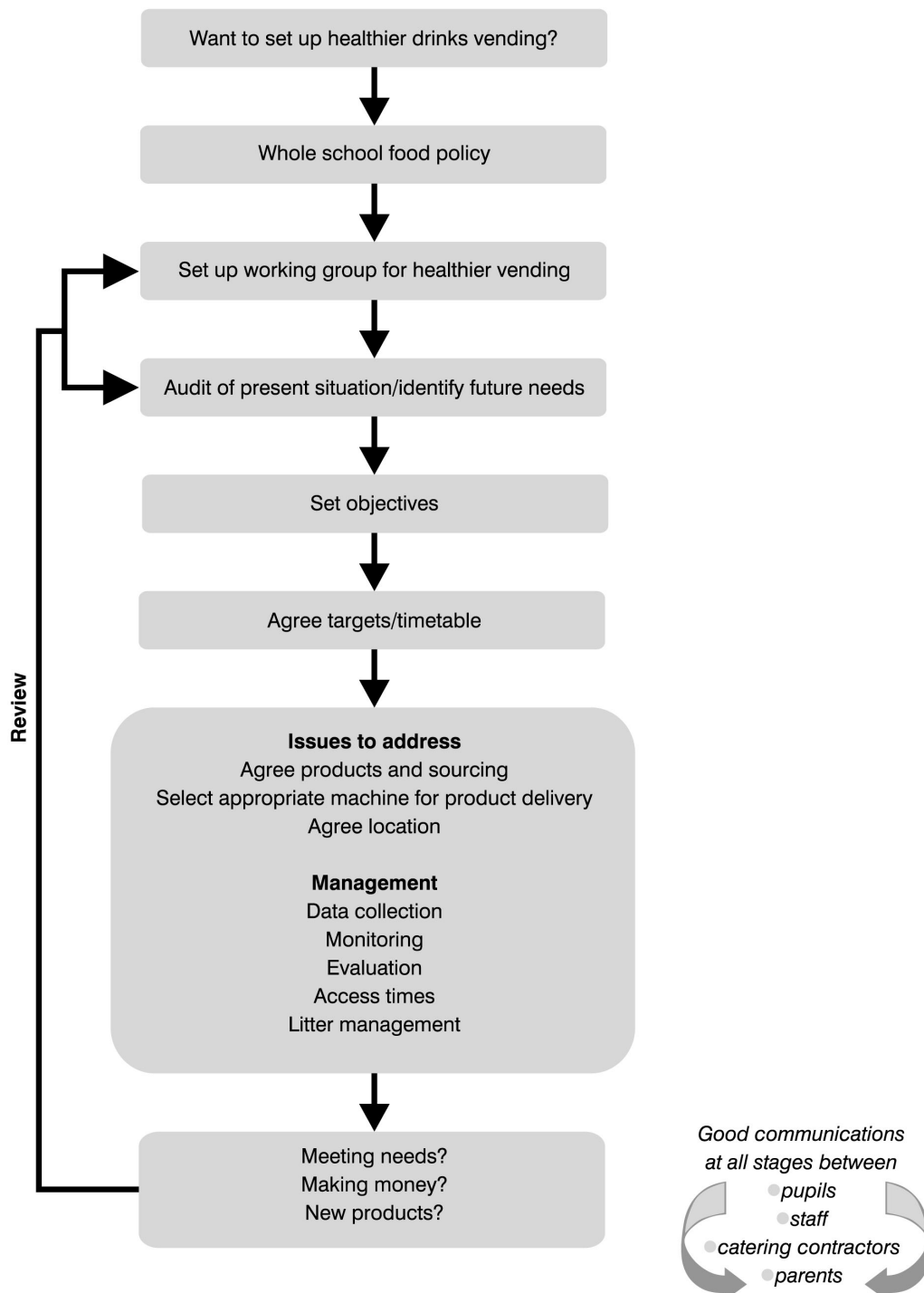
Adapted from AVA 'Explaining Vending' – see appendix 1

- How many people will be using the machine, during what hours?
- What products will they want?
- How much will they be prepared to pay?
- Will there be long periods when the machine is not in use (for example school holidays)?
- What other sources of supply are available locally, what do they charge and offer?
- Where will the machine be located?
- Is it readily accessible to all those who want to use it?
- Is there a convenient supply of electricity nearby?
- If required, is there a convenient supply of portable water nearby?
- Do you want users to pay by cash, token, card or are you providing products free at the point of delivery?
- What is your budget for the machine?



A process flow chart

Quick guide to setting up a healthier drinks vending operation





Location of machines

The location of vending machines is a key factor in the success or failure of healthier drinks vending. The decision of where to place the machine must be taken with care.

During the FSA pilot study it became clear very early on that machines situated well away from the dining areas set a number of challenges to the catering staff and indeed all ended the trial with an operating loss. Continuity of service is essential for success and, for this to be achieved, regular feedback is required on the status of a machine. Furthermore, the machine needs to be secure against vandalism.

Key pointer: location of machines

In the dining area or a place very close by to make filling/maintaining/supervising as easy as possible to ensure service continuity.

The following difficulties are likely to occur if the vending machine is situated any great distance away from the catering area:

1. Keeping a machine adequately stocked is time consuming for busy staff who have to leave the kitchen/dining room area to check what, if anything, is needed to replenish it.
2. Breakdowns may occur and pupils may claim to have lost money. Such situations are difficult to assess and time consuming to correct when the machine is not to hand.
3. The frustration if a machine malfunctions can irritate pupils. This, and a lack of proper supervision in such areas, is likely to increase the chances of vandalism or mischief as well as lowering sales significantly.
4. During times of staffing shortages, a problem not unknown in the school meals service, priorities will undoubtedly be focussed on providing the school meals on time. At such times filling or maintaining a vending machine will become increasingly difficult if it is situated a distance from the kitchen.

The advantage of locating in or very close to the dining hall makes for easy access to fill, supervise and maintain the machines by catering staff. However there may be other considerations that will need to be taken into account. These will be influenced by the size and layout of the school site, the management and administration of food service and pupil access to facilities.

- Access to vending when the canteen is closed is clearly important and a source of extra revenue if there are opportunities for:
 - Breakfast
 - End of school day purchases
 - After school activities refuelling.

If the machine is situated inside a dining room that closes at certain times, these opportunities are missed and services there denied.



Consideration:

- Can any part of the dining area remain open?
- Is there a space to locate immediately outside the dining hall entrance/exit, where it is still visible from within the hall?

Vending offers the chance to avoid queues and get quick service when the canteen is open but very busy – break and lunchtime.

Consideration:

- Can the machine be located within the dining hall so as to offer the benefits but avoid extra congestion?

Locating machines in 'house' or social areas away from the dining hall, can offer a facility to a particular age group, make these areas more attractive and civilised to pupils and deliver additional service points to pupils on a large campus.

Consideration:

- How can you manage, supervise and monitor such locations, so as to avoid the problems described above?

As a part of the wider considerations of the use and benefits of on-site vending, consider the existing custom and practice of guiding pupil access to off-site shops at break and lunchtimes and the school's policy (if it has one) on allowing mobile food service vans onto school premises.

NB Keep in mind when installing a machine that there should be a facility for electrical isolation controls, adequate ventilation, and access for washing the floor surface and machine surrounds.



Machine choice – compatibility of machine & product

Different types of vending machines have different characteristics and are built specifically to vend particular products. It should be recognised that the present range of vending machines hasn't been designed or built to meet the needs of healthier drinks vending in schools. The pilot study enabled two distinctly different types of machine to be trialled and this exercise highlighted some important considerations for machine selection, given the range of product commonly used and available in schools:

Bottle & can vender: This type of machine has a very high capacity, and is able to hold up to 450 cans or bottles when full. One benefit of this high capacity is the lower labour costs as it has to be filled less frequently. It also offers excellent visibility to the products making the machine a good 'shop window'. It is widely used in the UK. However, it is designed to vend round, firm shapes, (cans and bottles), and is intolerant of any product with edges. This machine will currently not reliably vend product in either brick or 'prisma' shaped tetrapak. It was built around the needs of the soft drinks industry in the UK and elsewhere and is highly efficient doing what it is designed for. However, some schools ban cans because of the damage they do to grass cutting equipment if discarded on playing fields. And the cost of bottle and can products tend towards the more expensive end of the price range.

Bottle and can venders are an efficient, effective option if a range of appropriate product can be sourced.

Carousel vender: These machines are designed primarily as food vendors. They have a more modest capacity, being able to hold up to approx. 160 drinks maximum (depending on product choice) and so are relatively heavier on labour costs for filling. Their ability to display product is relatively poor, but they are much more tolerant of different shapes and sizes and will vend almost any product including those with edges.

The flexibility of the 'carousel' vender makes this style of machine an attractive option for schools wanting to supply a range of accessibly priced product in bottle, can or tetrapak.

Second hand vending machines: This may be an option, although the cost saving must be weighed up against the greater likelihood of maintenance problems.

Future vending: Because of the huge interest in schools vending, it is very likely that new machines coming onto the market will meet schools needs for high capacity, flexibility and robustness. This will increase efficiency and profitability of healthy drinks vending in the near future.

To keep abreast of new developments, revisit the relevant websites listed in appendix 1, page 25, especially AVA, HET & FSA.

Key pointer: research machine/product harmony

Ensure that there is a good match between the capability and characteristics of the machine and the product sourced to fill it. Be aware that new machines and products will become available to meet the new demand as industry recognises the commercial potential open to it.



Product mix & price

Consultation, advice and information around pupil preference in each individual school should guide the caterer in sourcing the desired product mix for the machine to be used. This can be obtained by:

- Simple pupil questionnaire
- Checking counter sales of similar products where this is possible

Important considerations:

1. Type of product

There are many new and novel products coming onto the market now that are promoted as healthy for one reason or another, whether it's low calorie, organic, supplemented with vitamins and minerals, contains functional ingredients, or even fibre!

However what is really needed is to provide easy access for pupils to an affordable, attractive supply of nutritionally sound, low sugar drinks for satisfying thirst and giving enjoyment.

So stick to the '*Keep It Simple*' principle – offer basic products which are as healthy as possible and within pupils' budgets.

If you keep to waters, pure fruit juices, fresh milk and milk products, you can achieve a healthy product range which will be attractive and satisfying for your pupils.

Final product selection will depend on:

- The pupils' preferences in terms of flavour.
- Their perception of the affordability of the product – smoothies are more likely to be chosen in more affluent catchments and where there is a sixth form.
- The ability of the caterer to source particular product through their beverage supplier or dairy.
- Children's interest in, and the availability of, locally supplied product e.g. where a local dairy will supply fresh flavoured milks.

The following table provides a basic guideline from which school working parties can design a product plan that best suits individual school preferences.



Product type	Considerations	Popular examples
Waters	Offer flavoured water without artificial sweeteners	Still water Sparkling/fizzy water Flavoured waters: Peach Strawberry
Fruit juices Smoothies	Juices should be pure juice rather than 'juice drinks' Popular with 6th forms	Pure juices: Orange Apple Pineapple
Milk/milk products	Milk drinks must be cold Always aim to offer a fresh 'semi-skimmed milk' Semi-skimmed fresh preferred to skimmed or whole by pupils. Flavoured milks should contain less than 10% added sugar	Semi-skimmed fresh milk Flavoured milks: Chocolate Strawberry Banana

2. Style and packaging

Drinks generally are packaged in glass or plastic bottles, cans or Tetrapak cartons – glass containers are not appropriate for school use. The large majority of low cost milk and pure juices, even small 'smoothie' drinks are packaged in Tetrapak, either of the traditional 'brick' shape, or the more modern 'prisma'.

NB. Tetrapak products are not suitable for vending through some machines.

Most drinks must be cold to be enjoyed at their best – especially milks – so where possible fill machines with product that has already been chilled in fridges on site.

Though this may attract additional cost, consider offering some water products in sports bottles so they can be refilled free from the school's chilled water machines.

Consider a mix of product so as to include some resealable containers as this allows pupils to carry the drink with them for future use if they wish.

3. Product sourcing

Product can be most conveniently sourced by the catering contractor through their usual main suppliers. Each catering contractor is usually associated with a particular beverage supplier such as 'DBC', or '3663' or *Brakes* for administrative and commercial convenience. Each supplier has a specific product list on which the caterer bases his offer to the school. Since it may be difficult, time consuming, and expensive for a contractor



to go elsewhere for limited numbers of a particular product, it makes sense to first aim to select suitable products from within the range of relatively inexpensive pure juices, flavoured milks, milkshakes and waters available in suitable packaging. However, the appropriateness of the products for healthier drinks vending should not be compromised by any limitations imposed by the range available from a particular supplier.

In the case of fresh milk products, the range available from each local dairy will vary enormously but many milk products are packaged in a Tetrapak format (an important consideration for machine selection). Catering contractors and schools may find that they will need to order the fresh milk products from their local dairy and flavoured milk either from the dairy or their usual beverage supplier. (See appendix 1 for useful contact details for major dairies and suppliers).

Local/ sustainable sourcing

This is increasingly seen as an important issue, particularly by pupils, and it is well worth checking if a local supplier can provide a reliable supply of the type of product preferred by the school at a competitive price. It is often the pupils who will be aware of local producers and have tasted and enjoyed their product. Their involvement can be invited through assembly, student council pupil survey, classroom enquiry or suggestion boxes.

It is worth noting however that organic doesn't mean 'nutritionally superior', it refers to the method of production of the basic product ingredients. On the basis of current research the description organic food does not guarantee that a product will contain a higher level of nutrients than the same product produced conventionally^{vi}.

4. Price is a key consideration

The range of prices pupils are prepared to pay for drinks very much reflects their age and the relative wealth of the school's catchment area. The experience of the pilot study suggested a range from as low as 25p to a high of £1.00, with an average spend per item of between 30p-55p. Thus, while it is important to try to offer a wide range of product at varying prices in order to broaden choice, it is imperative to suit the product mix to pupils' pockets!

Key pointer: product mix & price

Aim for a broad range of product pricing but ensure that the products reflect pupil's tastes, their ability to pay and the opportunities offered by local producers.

5. Planogram

To create a plan of the layout of the products in the machine is a natural follow-on to the decisions on the product mix and pupils can be involved in this process.

Remember to vary the position of product in the machine from time to time to keep pupil interest.

Remember that the product at eye level, or the level of the coin slot if that is different, will sell better as these are the products seen first as pupils prepare to choose their drink – this characteristic can be used to get new product noticed and tried.



Commitment

Commitment from the senior management of both the school and the catering organisation is crucial to the success of healthier drinks vending. This should be established during the preliminary discussion on the rationale and purpose of the service. Each should examine the potential benefits available to them and those they represent, and then set these against the resources required. A perception that benefits outweigh the calculation of resources needed is clearly a major factor in establishing commitment and without it success is likely to be compromised.

These potential benefits – some examples are offered below – may well have a different character or emphasis for the different partners but it is important that they are discussed and recognised as objectives and the progress towards achieving them is monitored.

Some considerations when assessing potential benefits of a scheme:

- Will the machine be a commercial success?
- Will the development of healthier vending improve the reputation of the caterer and foster better client loyalty?
- Is this part of a 'whole school food and nutrition policy' – the final piece in establishing good practice and principles in this important area of pupils' lives?
- Will this style of vending be educationally more appropriate – matching the curriculum message to that of the vending service – and so improve the reputation and standing of the school?
- Will there be a significant pastoral value in the involvement of students in the process of debate and decision making?
- Might this play a part in better behaviour, or improved attention span in the classroom?
- Is there evidence of this having a positive effect on the fluid consumption patterns of pupils?

Key pointer: staff commitment

Both school and caterer should recognise that vending is an extension of an important and appropriate service and give it similar priority in terms of ensuring service continuity and reliability. This is easier to appreciate and deliver when both understand and recognise a range of substantial benefits to be gained.



Management & administration

Successful management and administration relies on the involvement and cooperation of pupils. By seeking their advice and ensuring widespread understanding of the initiative, its purpose and operation, you will minimise problems and maximise use.

How to maximise product sales

Always ensure good continuity of sales to maximise profits.

Some pitfalls to avoid:

- Machines being out of service for any length of time through breakdown or product jamming.
- Access difficulties, for example part of the school is off limits for reasons such as building works/exams in progress.
- A failure or shortfall in supply of popular product.

The key influences on sales other than a good product mix will be the pupils' perception of the consistency, the reliability, and the efficiency of the service the machine offers. This is illustrated by some of the pupil comments taken from the pilot study.

Maintenance and repairs

The machine suppliers will usually offer specific service contracts for maintenance and repairs. Although new machines will come with a one year warranty, whether purchasing or leasing new or second hand machines it is vital to ensure you check that your service agreement guarantees a swift response time and there are no hidden extras. If in doubt check with the industry governing body, the Automatic Vending Association, who offer excellent advice and information on their website on a wide range of affiliated companies and products. (See appendix 1).

Stopped using it when drinks kept getting stuck, and then the queues get huge!

(Quote from yr 9 pupil)

'They don't always keep it full – it's no use if when you get to the machine your favourite's run out!'

(Quote from yr 11 pupil)

Key pointers: management & administration

1. Ensure the machine is kept well stocked at all times.
2. Nominate and train key catering personnel to take responsibility for duties specifically related to vending machines:
 - Monitor the operational soundness of the machine.
 - Fill the machine regularly and ensure its cleanliness.
3. Establish a comprehensive maintenance and repair contract for the machine(s) which includes guaranteed response times.



Monitoring & record keeping

Good records are maintained to enable sound judgements to be made on the operation of the vending machine and its impact on other parts of the catering service.

Establish a simple effective data collection system to minimise the additional time required of the catering staff responsible. Sound data collection demonstrates the effectiveness of healthier drinks vending and provides useful information for evaluating the product and overall profitability:

- Product name/size
- Cost and sale price
- Numbers of each product sold (per term)
- Labour costs
- Net profit

Key pointers: monitoring

- Nominate specific personnel who are trained on the usefulness and importance of data collection.
- Use the standard proforma or adapt it to suit individual situations – ensure appropriate distribution of data.

NB A standard proforma has been included (appendix 3, page 31) which is based on ideas developed for use in the FSA pilot study.

Pupil usage & access

There was unanimity throughout the schools in the FSA pilot study that an extension of the vending service to sell milks, juices and water would be welcomed by the pupils and, given the caveats of location, accessibility and cost would be well used – it proved so. Having discussed *location of machine* and *cost of product* above, we should now address access.

Key pointers: pupil usage & access

Take care to consider with pupils suitable protocols to maximise the benefits of vending while not compromising the usual practices and administration of the school.

One of the great advantages vending can offer is access (at times other than during lessons):

- When the usual catering facilities are closed – before or after school.
- When there are 'pinch points' in the usual service – crowding or excessive queuing at break or lunchtime.
- When speed of service and 'grab and go' are the pupil objectives.



Marketing & promotion

It is well worth spending some time on raising awareness of the scheme and its rationale through a wide variety of means, prior to its launch date. This is particularly important for targeting those pupils who would not usually use the school canteen on a regular basis. Here are some tried and tested methods, all effective in raising awareness prior to launch:

1. Student council or School Nutrition Action Group (SNAG) activities with a focus on sampling opinions and attitudes from the pupil population.
2. Announcements in year assemblies, usually within the context of a broader food and nutrition message.
3. Raising awareness with pupils through discussion about the scheme and its rationale with their form teacher in tutor groups.
4. Work associated with healthier drinks in curriculum time for food technology and personal, social, health education (PSHE).
5. The creation of poster displays about the choice of drinks on offer, with a countdown to 'launch' date.
6. Inclusion of a description and timetable for the scheme in parent newsletters.
7. 'Taster' sessions of proposed product over the counter – sample product available for comment.

Key pointers: marketing & promotion

Discuss, agree and implement a marketing and promotion strategy to:

- Popularise the scheme and maximise profits for the school, both prior to and during the running of the scheme.
- Involve pupils in the design and delivery of each part of the process of a service created for them.

NB Revisit these campaigns at intervals during the running of the scheme, especially if new products are being trialled, to help boost usage and sales. Remember to make best use of the advice on product placement (planogram) given above on page 18.



Managing litter

Litter is a constant concern to schools as it can be seen as a very visible, if rather unreliable, indicator of the quality of the management of the site as a whole. It can also cause considerable friction if litter from a school blows onto their neighbours' gardens. However most schools have strategies for combating litter as it is a fact of institutional life, vending machines or not!

- Supply large colourful litter bins wherever pupils are eating and drinking.
- Focus on caring for the school environment within the curriculum in PSHE/Citizenship.
- Raise awareness in assemblies/tutor groups.
- Run litter patrols on a class by class basis.
- Seek support from the School Council.
- Investigate opportunities for recycling.
- Restrict areas where eating and drinking may take place.

Key pointers: managing litter

- Link vending issues into your existing policy on litter and use it as a vehicle for social education.
- Provide large, attractive, secure litter bins for each vending machine, to encourage appropriate pupil behaviour.

This last control can have an impact on the use and advantages of a vending machine and so should be considered in tandem with the decisions about the use and siting of vending machines.



A look into the future

There is an increasing awareness of the importance of good food and nutrition in schools as a result of the growth in childhood obesity and some suggestion of benefits to be gained in performance and behaviour in the classroom. At last schools have an opportunity to change the face of the traditional drinks vending trade in schools to one which is healthier and underpins good educational practice and the interests of our pupils. Not only do head teachers and governors have total control over their food and drinks service through the delegation of school meals budgets, they also have accountability.

The old myths that children will not buy water, juices and milks from vending machines, and that such machines could never generate an income, can be laid to rest. Such arguments also choose to ignore the health and welfare of pupils.

This is an exciting new market place for the vending industry too, and one it is waking up to rapidly. Although the machines presently available have been designed to suit the products of the soft drinks industry, they are still capable of providing a commercially sound outlet for healthier products if used efficiently and appropriately. However new machines are presently being trialled that combine high capacity with product flexibility.

The potential revolution of vending in our schools is a massive opportunity for product manufacturers. It has been exciting to see the appetite children have for milk, milk products, juices and water. The most obvious hole in the market is the lack of attractively packaged fresh milk products. Despite this, fresh milk and milk products were the 'best sellers' in the FSA study. There are over 5,500 secondary schools in England, Wales and Scotland; we have estimated that if just one-in-five head teachers put a single healthier drinks machine into their school and replicated our results, approximately 15 million additional units of milk products, juices and water could be vended to children in schools every year.

The Food Standards Agency as part of its *Action Plan on Food Promotion and Children's Diets* is currently funding consultancy work to develop options for definitions of "foods high in fat, salt and sugar", and "healthier choices". The definitions agreed will help you to judge the products suitable for inclusion in your healthier vending machines. You may want to keep an eye open for the nutrient profiles by checking on the FSA's web site. (See page 29)

It is clear that the time is right for rapid and substantial change to ensure pupils in schools have access to appropriate healthier choices not just over the counter but also through any service supplied via vending machines. This service would form an integral part of a whole school approach to food and nutrition that will help to benefit the long-term health of all pupils.





Appendix 1: Further information & resources

Key organisations involved in vending

Automatic Vending Association

www.ava-vending.org

Automatic Vending Association, 1 Villiers Court, 40 Upper Mulgrave Rd, Cheam, Surrey SM2 7AJ

Telephone: 0208 8661 1112

info@ava-vending.org

Local Authority Caterers Association (LACA)

<http://www.laca.co.uk>

LACA is the professional organisation which has amongst its members 400 suppliers and supporters of education catering. Some 85% of LEA schools are serviced by LACA and it is the biggest supplier of school catering in the country.

Local Authority Caterers Association, Bourne House, Horzell Park, Woking, Surrey GU21 4LY

Telephone: 01483 766 777

admin@laca.co.uk

Everything you ever wanted to know about vending

The Automatic Vending Association (AVA) website provides valuable industry information to members and enquirers and is a good place to start for any school considering healthier drinks vending. The website includes:

- A list of AVA members, with telephone and fax numbers included alongside email and website hyperlinks. Members are sorted by type; Operators, Commodities, Machines & Components and Affiliates with further subdivisions to assist searches.
- Details of the AVA Quality Scheme. AVA Members are required to be audited annually and compliance with the scheme is mandatory. Members failing to comply are expelled from the Association. Only full AVA members are entitled to use the AVA logo.
- A useful AVA publication *Explaining Vending* can be downloaded. This tells you what to look for when buying or leasing a vending machine and takes the mystery out of purchasing vending services.
- General information section on vending, including Operating the Vending Service and Inside the Machine – What Happens to your Money.



Contact details for major food & beverage suppliers

3663 First for Food Service

<http://www.3663.co.uk/gen>

For general enquiries:

Buckingham Court, Kingsmead Business Park, London Road, High Wycombe, Bucks HP11 1JU

Telephone: 0870 3663 100

Fax: 0870 3663 199

Brakes

<http://www.brake.co.uk>

Enterprise House, Eureka Business Park, Ashford, Kent TN25 4AG

Telephone: 0845 606 9090

For general enquiries email:

customer.service@brakes.co.uk

DBC

(formerly A to Z Catering Suppliers)

<http://www.dbcfoodservice.co.uk>

Marketing Department, DBC Foodservice, Denmark House, Parkway,

Welwyn Garden City, Hertfordshire AL8 6JN

Telephone: 01707 323421

For general enquiries email:

info@dbcfoodservice.co.uk or telephone: 0800 018 3421



The Dairy Council

www.milk.co.uk

164 Shaftesbury Avenue, London, WC2H 8HL

Telephone: 020 7395 4030

Fax: 020 7240 9679

info@dairycouncil.org.uk

The Dairy Council is a non-profit-making organisation set up by the dairy industry to provide information and advice on the health benefits of milk and dairy products to the consumer.

The Dairy Council provided invaluable support to the vending machine project by arranging for the UK's largest dairy companies to supply an array of milks, dairy products, orange juices and waters for the machines.

The dairy companies with the greatest involvement in the vending machine project included Arla (incorporating Express Dairies as of March 2004); Dairy Crest; and Robert Wiseman Dairies.

Key to the project's success was the contact catering managers had with local dairy suppliers.

To establish which local dairy company serves your school:

Contact the following organisation which represents the majority of dairy businesses in the UK.

DairyUK, 93 Baker Street, London W1U 6RL

Tel 020 7486 7244

The organisation should be able to confirm the nearest dairy company or supplier to your school. Armed with this information you can then contact the dairy direct and using your address (post code) they should be in a position to confirm if they can supply to your doorstep.

If you know the name of the dairy company or dairy co-operative you can contact them directly (see list below).



Contact details for major dairies

Arla Foods UK plc

Arla House, 34 Savannah Way, Leeds Valley Park, Leeds LS10 1AB
Tel (North) 0116 282 1218 (Midlands and South) 01623 654513
enquiries@expressdairies.co.uk
www.expressdairies.co.uk
www.arlafoods.com

Dairy Crest Ltd

14-40 Victoria Road, Aldershot, Hants GU11 1TH
Customer service: Tel 01252 366725
generalenquires@milkdeliveries.co.uk
www.milkdeliveries.co.uk

Dairy Farmers of Britain

Alpha Building, London Road, Stapeley, Nantwich, Cheshire CW5 7JW
Tel 0800 834823
enquiries@dfob.co.uk
www.dairyfarmersofbritain.com

First Milk

(Northern Office) Underwood Road, Paisley PA3 1TJ
Tel 0141 8876111
www.first-milk.co.uk

Midland's Co-operative Limited

Central House, Hermes Road, Lichfield WS13 6RH
Customer Services Department: Tel 0800 592940
dairy.customerservices@midlandsco-op.com
www.midlandsco-op.com

Milk Link

Plym House, 3 Longbridge Road, Plymouth Devon PL6 8LT
Tel 01752 331800
enquiries@milmlink.com
www.milmlink.com

Robert Wiseman and Sons Limited

Enquiries to Contract Sales Manager
159 Glasgow Road, Nerston, East Kilbride, Glasgow G74 4PA
Tel 01355 244261
www.wiseman-dairies.co.uk



Other useful organisations

Food Standards Agency

www.food.gov.uk

Provides a wealth of information on nutrition, diet and healthy eating

Health Education Trust

www.healthedtrust.com

het@joeharvey.fsnet.co.uk

For an introduction to SNAG concept, updates on many school food policy issues, and a wide range of web links to other related sites.

Water is cool in schools campaign

www.wateriscoolinschools.org.uk/

A specialist website run by ERIC the campaign for better understanding and management of enuresis. The Water is Cool in School Campaign aims to improve the quality of provision and access to fresh drinking water for children in UK primary and secondary schools.

Department for Education and Skills

<http://www.dfes.gov.uk/index.htm>

Scottish Executive Education Department

<http://www.scotland.gov.uk>

Wired for Health

www.wiredforhealth.gov.uk



Appendix 2: Definitions for soft drinks

Adapted from the British Soft Drinks Industry website <http://www.britishsoftdrinks.com>

A **soft drink** is defined under the Additives Regulations as a "non-alcoholic water based flavoured drink."

A **carbonated drink** is, under European law, identified as being "a manufactured drink, optionally sweetened, acidulated, carbonated and which may contain fruit, fruit juice and other salts and the flavour may derive from vegetable extracts or flavourings."

Juice drinks are soft drinks made with varying quantities of different types of fruit juice. Therefore the blend of fruit juice with other ingredients such as sweeteners and preservatives means that they are covered by different regulations from pure fruit juices.

A **flavoured water** is not water but what is commonly known as a clear soft drink. Under the bottled water regulations nothing can be added to water (except carbon dioxide for carbonated bottled waters). As soon as an ingredient is added whether it be a colour, flavour or a sweetener the product becomes a soft drink.

Sports drinks are formulated to supply fluid quickly and maintain the body's blood glucose levels. These drinks are often isotonic i.e. in balance with the body's own fluid, containing the same number of dissolved solids as the blood. They contain low amounts of sugar as high amounts (of sugar) would reduce the body's ability to absorb this fluid quickly.

Energy drinks replenish energy levels for someone who has been physically active. The sugars that are used in energy drinks are carbohydrates which are a blend of slow, medium and fast acting sugars which supplies energy to the body over an extended period of time.

Appendix 3: Sample sales data sheet

The proforma that follows can be photocopied and used directly.



Appendix 4: References

ⁱLobstein T, Baur L, Uauy R for the IOTF Childhood Working Group. *Obesity in children and young people: A crisis in public health*. *Obesity Reviews* 2004; 5 (suppl 1); 4-85

ⁱⁱGregory J, Lowe S. *National diet and nutrition survey: young people aged 4 to 18 years*. London: Stationery Office, 2000

ⁱⁱⁱHarnack L, Stang J, Story M. *Soft drink consumption among US children and adolescents: nutritional consequences*. *J Am Diet Assoc* 1999;99:436-41

^{iv}Ludwig DS, Peterson KE, Gortmaker SL. *Relation between consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis*. *Lancet* 2001;357:505-8

^vHouse of Commons Health Committee. *Obesity*. Third report of session 2003-4, HC 23-1. Volume 1, May 10th 2004

^{vi}Details on SNAG's and publication on setting up SNAG's – 'The Chips Are Down', author J. Harvey, available from <http://www.healthedtrust.com/pages/snag.htm>

^{vii}<http://www.food.gov.uk/science/sciencetopics/organicfood/>
<http://www.food.gov.uk/news/newsarchive/2003/jun/cheltenham>