

2015 Section B Q1

1.

A survey was conducted to identify the level and type of marketing of foodstuffs in post primary schools in the Republic of Ireland.

An extract from the summary of the main findings showed that a variety of food outlets e.g. tuck shops (53.2%), canteens (53.2%) and drinks vending machines (44.7%) are in operation in post-primary schools in Ireland, with a high proportion of schools also reporting a shop close to the grounds (64.4%).

A variety of healthy foods are available through one or more of these outlets including water (92.1%), juice (78.4%), sandwiches (73.9%) and fruit (62%). However, confectionery (74.1%), salty snacks/crisps (57.2%), fizzy/high sugar drinks (51.8%), diet drinks (50.2%) and biscuits, cakes and pastries (32.6%) are also widely available.

(a) Using the information given above, comment and elaborate on (i) the provision and (ii) the nutritional significance of the foods and beverages available to students in post primary schools.

(i) The Provision of Foods and Beverages

Canteens: operate in 53.2% of post primary schools. Canteens are a suitable option as they provide a wide variety of home-cooked style meals. They provide meals such as chicken curry and spaghetti bolognese. These meals are very suitable for secondary school students as they provide a large amount of energy and they will prevent a slump after lunchtime.

Shops: 64.4% of schools have a shop located near the grounds. There are advantages and disadvantages to this. Shops have a wide variety of healthy snacks which may not be available in some schools. However, they also provide a huge range of cheap fast food for example delis serving sausage rolls and fatty foods. Shops can also cause temptation to pick up empty kilocalorie foods such as chocolate and crisps during lunch time.

Drinks vending machines: 44.7% of schools have a vending machine. I think this provision causes harm to health and to the environment. These machines are full of single use plastic bottles which are usually not

recycled properly and can be harmful to the environment. When these drinks contain high sugar fizzy drinks, it can be very tempting to anyone who has a sugar craving. These fizzy drinks are bad for your teeth and they also cause a quick burst of energy followed by a slump.

(ii) Nutritional Significance

Water: 92% of schools provide water in their outlets. This is very positive as it is promoting the importance of drinking water. 2 litres of water a day is required by teenagers so the provision of water in these outlets reinforces this idea.

Confectionary: 74.1% of schools provide confectionary. This type of food provides empty kilocalories to the body. Secondary school students require a large amount of energy and confectionary can cause problems with their energy levels. It provides a quick boost of energy, quickly followed by a slump. This hinders concentration levels which is not sustainable for students in this setting.

Fizzy/High Sugar Drinks: provided in 51.8% of schools. These drinks carry many health risks such as diabetes and dental disease. They don't hydrate the body as well as water does so this can lead to dehydration. They are a very poor choice of beverage, especially for exam students who need a long, steady release of energy.

(b) Poor food choices have contributed to 42% of teenage girls and 23% of teenage boys not getting enough calcium in their diet. Give an account of calcium and include reference to: • sources • biological functions • factors assisting/inhibiting absorption

Sources: milk, cheese, yoghurt, tinned salmon, green leafy vegetables

Functions: needed for strong bones and teeth, assists with blood clotting and aids normal muscle contraction

Factors Assisting Absorption: Vitamin C, Vitamin D, hormone oestrogen

Factors Hindering Absorption: Tannins present in tea and coffee, phytic acid in wholegrain bread, oxalic acid in rhubarb

(c) Explain (i) what is osteoporosis; (ii) the main factors that increase the risk of developing osteoporosis.

(i) Osteoporosis: a skeletal disease where bones become thin and porous. It can result in bones fractures, loss of height and curvature of the spine.

(ii) Main Factors:

- 1) Age: studies have shown that osteoporosis is most common in pre-menopausal women (48-55) as the hormone oestrogen decreases at this time which reduces calcium absorption.
- 2) Sex: osteoporosis is most prevalent in women as they have smaller and thinner bones.
- 3) Diet: a lack of calcium, phosphorous and vitamin D can reduce strong bone formation and lead to osteoporosis.

(d) Discuss the role of parents in shaping their children's food choices.

Children's food choices are influenced by what is available to eat at home. It is important that parents avoid purchasing processed food and provide fresh foods such as fruit and vegetables.

Parents should choose healthy snacks and meals such as salads. This is a good way to influence their children's food choices by setting a good example.

If children see their parents cooking healthy dinners, they are more likely to do the same in the future.

If a child sees their parents constantly getting takeaways or consuming unhealthy food, they will start to develop unhealthy eating patterns.

Parents should teach their kids how to read nutrition labels. This helps the child to make good food choices as they are aware of portion sizes and the importance of certain nutrients in the diet.

A parent's culture and/or religion can affect a child's food choice. For example, Muslims don't eat pork so a child will more than likely follow in their parent's footsteps. If a parent is vegetarian, the child might look up to them for this and then begin similar eating habits.

