

## 2015 Section B Q1

**(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.**

53.2% of post-primary schools have a tuck shop. These shops generally sell unhealthy foods such as chocolate crisps and confectionery. Most of the food sold is pre-packed convenience foods.

44.7% have a drink vending machine generally providing fizzy drinks high in sugar. The provision of healthy drinks like smoothies is low as they have a much shorter shelf life.

64.4% have shops close to the school which can provide a wide variety of foods (foods high in sugar, hot or cold and nutritious). Shops tend to advertise deals that are focused at the students which can be high in fat or sugar.

Water provided at 92.1% is a good alternative to fizzy drinks as it prevents dehydration and has no added sugar which produces dental cavities.

Fruit at 62% is a good source of vitamins and minerals providing fibre to help maintain a good digestive system. Fruit is generally only sold in canteens and shops as they spoil quickly.

Confectionery 74.1%. These are foods very high in sugar (sweets and chocolate). They shouldn't be eaten daily but the wide availability and cheapness makes them more attractive to students. Too much of these can cause obesity as well as early onset diabetes.

**(b) Give an account of calcium and include reference to: sources, biological functions and factors assisting/inhibiting absorption.**

Calcium can be sourced from dairy products like milk or cheese, fish e.g. salmon and also dark green vegetables e.g. spinach. The biological functions include aiding the formation and development of strong bones and teeth, normal functioning of nerves and membrane permeability as well as regulating metabolism in the cells.

Factors that inhibit absorption: Too much fibre binds to calcium preventing its absorption.

Tannins in tea and coffee as well as oxalic acid present in rhubarb binds to calcium preventing its absorption as well.

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

(i) Osteoporosis is a disease which causes the bones to become thin and porous resulting in fragile and brittle bones that can break easily as you get older.

(ii) Diet – A diet that lacks in calcium and vitamin D as these are essential for strong bones.

Gender - Usually more common in females because they have smaller bones and at menopause the production of oestrogen (which protects bones) is stopped.

Age - Risk increases with age because of the lack of hormones and exercise.

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

Generally, kids will eat what they are given so it is important to provide healthy snacks from a young age. Include a wide variety of fruit and veg in their diet so that they get used to them from a young age.

Eating together at a certain time each day is a positive attitude for kids to get used to as it provides structure to meal time. This also makes them realize the importance of eating a proper meal e.g. meat, potatoes and veg.

The culture of which the parents grew up in and are living in determines what type of food is cooked and available for the children. An example of this is China where a lot of rice is eaten or

Ireland where we eat lots of potatoes and beef because they are country's staple foods. The kids will grow up and copy their parents cooking.

If the parents have a good knowledge of nutrition, they provide better meals and snacks which affects children positively. They will be supplied with all the correct amounts of vitamins and minerals but also the knowledge and understanding of eating healthy foods.

It is important for parents not to feed their kids a lot of unhealthy foods as they will get addicted to these sugary and salty foods which can result in obesity, dental cavities etc. The kids will grow up to buy these foods and the obesity could continue in that family for generations.