

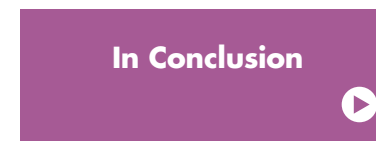
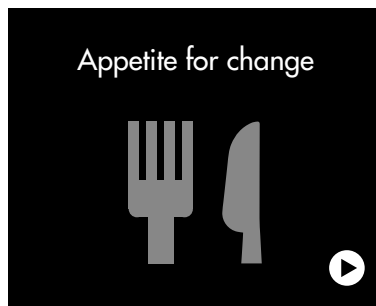


Situation Report:

The Scottish Diet: It needs to change

2018 update

Why Scotland is tipping the scales in the wrong direction



Context

As Scotland's independent food body, Food Standards Scotland has a remit to put the consumer first and to ensure its information is independent and evidence-based. This 2018 update to the Situation report on the Scottish Diet continues to highlight the scale of the challenge and the need for change and includes a new section exploring consumers' appetite for change. This report is designed for use by policy makers, stakeholders including the food industry, health professionals and consumers.

Although 9 out of 10 of us agree that obesity is a serious issue in Scotland, at the same time 65% of us are either overweight or obese and most of us believe our own diets to be healthy.

We know it's hard for people to do the right thing and that education alone is not sufficient to change behaviour, particularly when food and drink high in fat, salt and sugar is cheap, widely available, and heavily promoted. It is clear that there is no 'silver bullet', which is why FSS proposed a range of measures to transform the food environment, shift consumer behaviour and improve the Scottish diet.



82% of people think that reducing levels of obesity is a shared responsibility





Introduction: Too much of what we fancy

Like most of the western world, Scotland eats too much of the wrong things. It is not just a case of over-indulging occasionally – many of us are making bad choices about what and how much we eat throughout the day, every day, encouraged by a food and drink environment in which high fat, salt and sugar food is cheap, widely available and heavily promoted.

Levels of type II diabetes, heart disease and other illnesses including many types of cancer associated with obesity are stubbornly high in Scotland, and they've been that way for years. We're failing to eat enough nutritious, healthy foods like fruit and veg, oil-rich fish, fibre and whole-grains which can help reduce risk of disease. While some people have better diets than others, the diet is poor across the whole population. Our high calorie,

fat, salt and sugar diet persists and, given its impact on public finances and the scale of the burden on individuals and families, this situation continues to be unacceptable.

Food Standards Scotland monitors the national diet against Scottish dietary goals. This report outlines how far away we are from the goals we're working towards. The extent of the change needed to improve our diet must not be underestimated.



Our diet – at a glance



The Scottish diet remains too high in calories, fats, sugar and salt, and too low in fibre, fruit and veg, and other healthy foods like oil-rich fish.



Our poor diet is deep-rooted and hasn't changed significantly in the last seventeen years.



Poor diet exists across all socio-economic groups but the most deprived tend to have the poorest diets.



Discretionary foods and drinks,¹ including alcohol, are high in calories, low in nutritional value and are not necessary for our health. They tend to be heavily promoted and represent an unhealthy proportion of our overall diet.



It's essential that we reduce the consumption of discretionary foods and drinks if we are to make significant and measurable improvements to diet and health.

¹ Discretionary foods and drinks in this report include: confectionery, cakes, biscuits, pastries, savoury snacks and sugary drinks

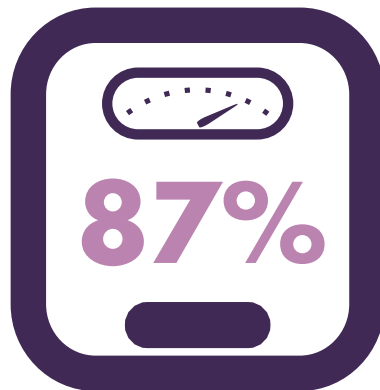
Overweight and obesity

Our poor national diet is contributing to health problems. This puts a huge burden on our health service, as well as on individuals and families.

In Scotland a key dietary concern is the consumption of too many calories – leading to overweight and obesity – especially from energy dense foods and drinks which are high in fat and/or sugar. Today approximately two out of three adults and around three in ten children living in Scotland are overweight or obese. Being overweight or obese increases the risk of type II diabetes, 13 types of cancer, heart disease and stroke.



2 out of 3 people
are either overweight
or obese



of type-II diabetics are
overweight or obese



29%
of children overweight
or obese

Overweight and obesity can cause



types of cancer*



**Only 27% of people
can correctly identify
when others are obese**

* Data from Cancer Research UK.

Find out more 

How our diet is making us ill

It's not only being overweight or obese that causes health problems.

Common diseases where diet is a contributory factor:



6,697
deaths from coronary heart disease in 2016



2,181
deaths from stroke in 2016



31%
of primary 1 children had obvious dental decay in 2016



29%
of the adult population have high blood pressure in 2015

Dietary risk factors:



Fruit and vegetables **decrease** the risk of cardiovascular disease and some cancers



Fibre **decreases** the risk of bowel cancer



Oil rich fish **decreases** the risk of cardiovascular disease



Red and processed meat **increases** the risk of bowel cancer



Salt **increases** the risk of high blood pressure and stroke



Sugar **increases** the risk of tooth decay and can contribute to weight gain



Saturated fat **increases** the risk of cardiovascular disease



Sugary drinks **increase** the risk of type 2 diabetes

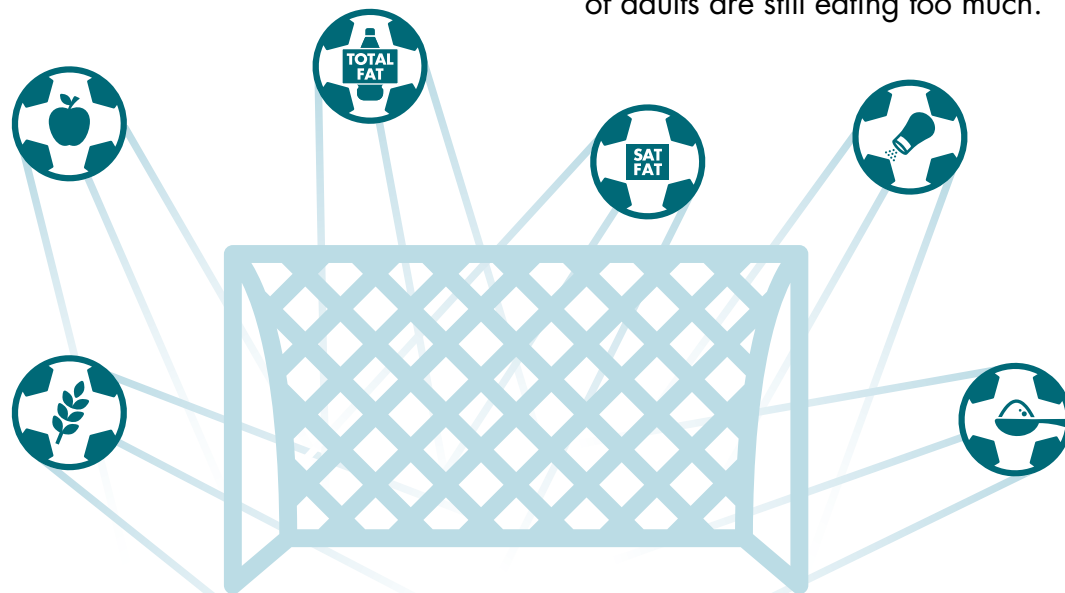
[Find out more](#)

Scottish dietary goals: where we are now

In Scotland, dietary goals* are used to benchmark the national diet and to show where we are now and where we need to be.

In 2016 the goal for sugar was halved, while the goal for fibre was increased by nearly a third based on the latest scientific evidence. This means that the new goals are even more challenging to meet.

Our diets are very energy dense because they contain too much sugar and fat, and this increases our risk of eating too many calories and overweight and obesity. We need to replace sugary and fatty foods with fruit, vegetables and wholegrains to reduce the energy density of our diet. We also need to cut down on salt to help us get the balance right. Although we have reduced our intakes of salt, two-thirds of adults are still eating too much.



Scotland has been consistently missing its dietary goals for over 17 years.

* Scottish Dietary Goals (2016): <http://www.gov.scot/Resource/0049/00497558.pdf>



The energy density of the average diet in Scotland is 40% over the Scottish dietary goal.

Find out more

What we should be eating more of

Fruit & Veg goal:



Intakes of vegetables are particularly poor in Scotland

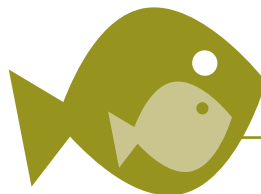
Fibre goal*:

Goal **30g** of fibre a day

Current intake **15.6g** of fibre a day



Oil rich fish goal:



Goal **140g** of oil rich fish a week

Current intake **34g** of oil rich fish a week

* The Scottish Dietary Goal for fibre was revised in 2016 and now recommends that intakes of AOAC fibre should be increased to 30g per day for adults. The previous goal was for non-starch polysaccharide fibre, and recommended intakes of 18g per day. Data has been converted to AOAC fibre using a conversion factor to reflect the new dietary goal (1g NSP = 1.3g AOAC fibre)

Find out more 

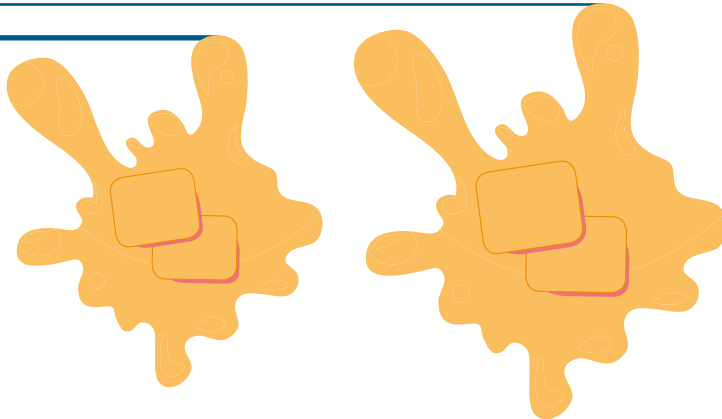


What we should be eating less of

Total fat goal:

Current intake **38.9%** of food energy

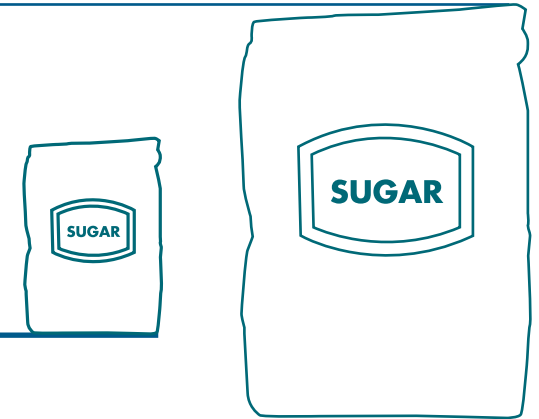
Goal **35%**
of food energy



Sugar goal*:

Current intake **14.4%** of food energy

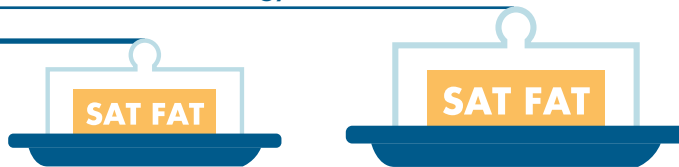
Goal **5%** of
food energy



Saturated fat goal:

Current intake **15.1%** of food energy

Goal **11%** of
food energy



Salt goal:

Current intake **7.8g**

Goal **6g** per day



* The Scottish Dietary Goal for sugar was revised in 2016 and now recommends that intakes of free sugars should be no more than 5% of total energy. The previous goal was for non-milk extrinsic sugars and recommended that intakes were no more than 11% energy. Free sugars includes all sugars added to foods and those present in fruit juice and honey.



Around 90% of people in Scotland are concerned with the amount of sugar, fats and salt in their food

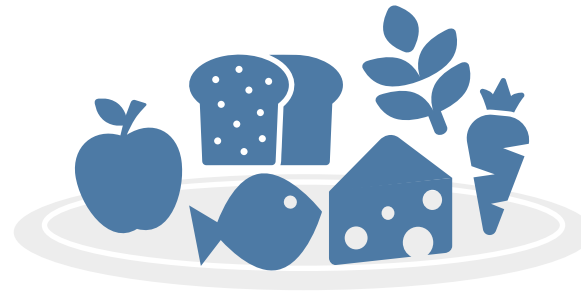
Find out more

Diet is poor overall, but inequalities exist

Poor diet exists across the population but the most deprived tend to have the poorest and most energy dense diets. For many, cost is seen as a barrier to a healthy diet.

There are differences in the types of food and drink consumed which mean that those in the least deprived areas tend to consume more vitamins, minerals and wholegrains.

There are also inequalities in the burden of diet related disease. Overweight and obesity in adults and children increases with deprivation, while more people in the most deprived communities die from heart disease and stroke compared with those in the least deprived communities. More primary school children from the most deprived² areas suffer from tooth decay compared with children living in the least deprived areas.



Least deprived have more:

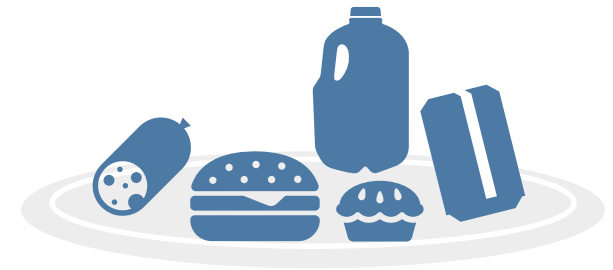
Fruit and vegetables

Wholemeal bread

Wholegrain breakfast cereals

Oil rich and white fish

Butter, cream and cheese



Most deprived have more:

Sugary drinks

Savoury and meat pies

Sausages and burgers

Whole milk



Around 32% of adults living in the most deprived areas are obese, compared to just 20% of those living in the least deprived areas

² The Scottish Index of Multiple Deprivation identifies the level of multiple deprivation in small areas across all of Scotland in a consistent way. These areas can then be grouped into deciles or quintiles. Quintile 1 refers to the fifth most deprived areas, and quintile 5 refers to the least deprived fifth.

Find out more 

Discretionary foods in the diet

Too much of the Scottish diet today is made up of discretionary foods. These tend to be energy dense foods with lots of calories and little nutritional value.

20%

of all calories and fat we eat comes from discretionary products



50%

of the sugar we consume comes from discretionary products



A high proportion of our calories, fats, sugars (and in some cases salt), comes from discretionary foods. These are foods and drinks that we don't really need for a healthy diet, including confectionery, cakes, biscuits, pastries, savoury snacks and sugary drinks. They should be only eaten occasionally and in small amounts.



of sugar intake comes from sugary drinks



Around half of us don't think we eat too many treats every day

[Find out more](#)



Alcoholic drinks are also discretionary

Alcoholic drinks are also discretionary, and are high in calories. The recommended number of calories for an average man and woman is 2500 and 2000 calories a day.

It's estimated that men in Scotland who drink alcohol consume around 1100 kcal a week from alcohol, equivalent to almost 8 pints of lager.

It's estimated that women in Scotland who drink alcohol consume around 810 kcal a week from alcohol, equivalent to almost 1.4 bottles of red wine.



= 1,100 kcal per week

Men in Scotland who drink get around 1100 kcal a week from alcohol, the same as 8 pints of lager



= 810 kcal per week

Women in Scotland who drink get around 810 kcal a week from alcohol, the same as 1.4 bottles of wine



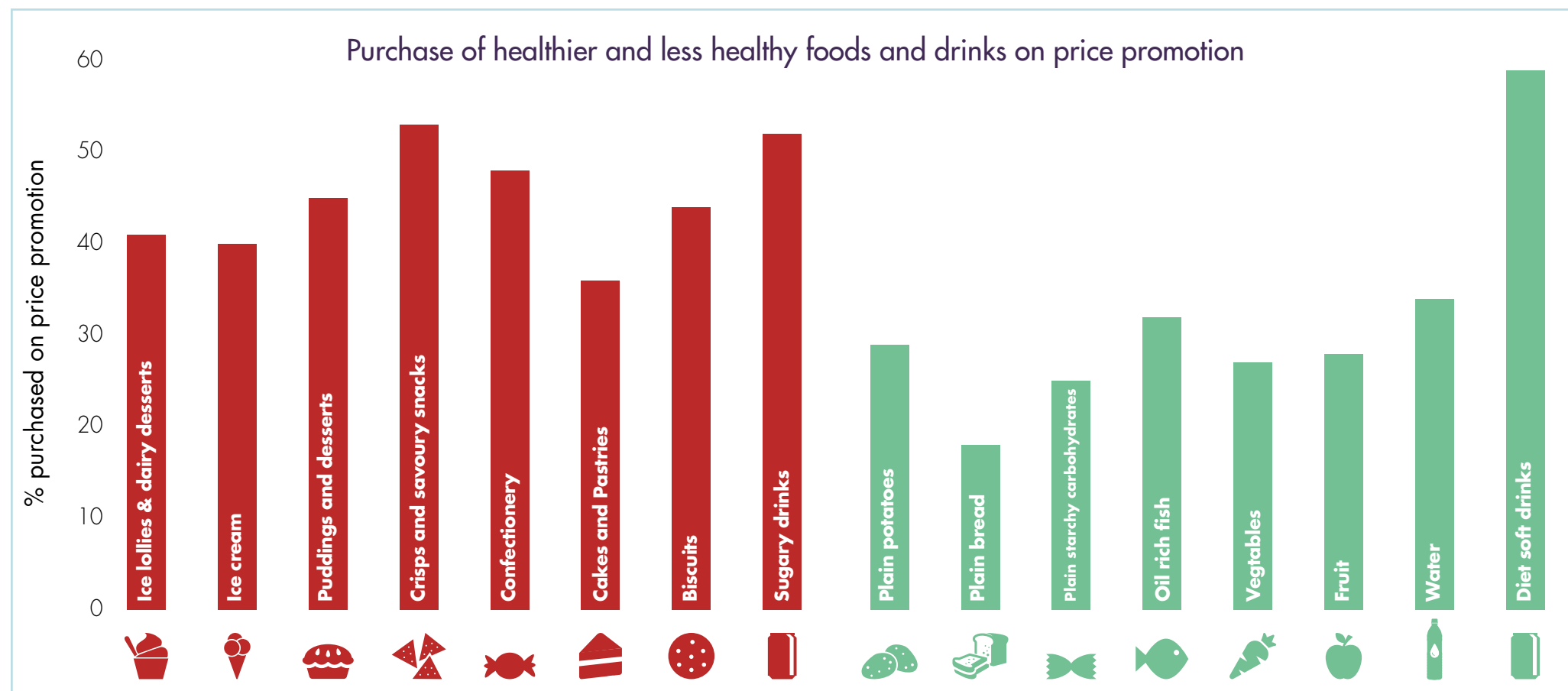
Many alcoholic drinks will also be mixed with sugary soft drinks, which are high in calories and sugar

Find out more 

Price promotions



Around 36% of the calories we buy from shops and supermarkets are on promotion and we know that we tend to buy a lot more unhealthy products on promotion than healthy products. For example, as much as 74% of confectionery was bought on promotion compared with as little as 20% of fruit or vegetables from some shops. Surprisingly, products on promotion are not always the cheapest option.



[Find out more](#)

Eating outside the home

The foods and drinks we buy from cafés, restaurants, takeaways and other outlets tend to be less healthy, including chips, burgers, cakes, biscuits and pastries and sugary drinks. More regular cola is consumed out of home than diet cola.

When eating away from home, children aged up to 12* tend to eat even more of these foods and drinks more chips, burgers and sugary drinks compared with adults and most think that children's menus should offer more healthy choices.

Nutrition information is often not available when eating out, and price promotions are commonly used to encourage purchase of confectionery and other sweet items like biscuits, cakes and desserts.



40% of the biggest out of home businesses in Scotland don't even provide customers with nutritional information online

* This survey only includes data on children aged up to 12 yrs, who were accompanied by adults who filled in the survey on the child's behalf.

Top 5 foods and drinks consumed out of home (% of total visits)

Speciality coffee and hot chocolate



11.6%

Water



10.7%

Regular cola



10.1%

Chips



9.9%

Cakes, biscuits and pastries



9.4%

Find out more



Appetite for change

Although there has been little progress towards improving diet and obesity in Scotland, mind-sets are shifting and support for action to improve the food environment may be growing.

64% of people are concerned about others having an unhealthy diet, increasing from 50% in 2015.

91% of people think obesity is a serious problem in Scotland.

82% of people think that reducing levels of obesity is a shared responsibility.



91%

of people think cheap, fast food is too readily available.



66%

of people think cafes and restaurants should display calories on their menus.



49%

of people would support banning promotions on unhealthy products.

Find out more

Cutting back on discretionary foods and drinks

We all eat too much confectionery, biscuits, cakes, pastries, savoury snacks and sugary drinks. For example, an average 7 year old boy in Scotland will eat more than his bodyweight in these foods every year.

We also buy a lot more of these foods and drinks in the run up to Christmas, starting early as October. Our **extra** purchase over this time equates to an additional 9,000 kcal each and, if eaten, could cause us to gain around 2 lbs in weight.*

A key step to improving everybody's diet would be to reduce the amount of these foods we eat by **at least** half. This would be a first step, as we should actually be eating even less.



50%

We need to reduce our intake of discretionary foods by at least half.



We need to minimise our intake of sugary drinks.



* <http://www.foodstandards.gov.scot/publications-and-research/monitoring-foods-and-drinks-purchased-into-the-home-in-scotland>

Find out more 

In conclusion

Levels of obesity are not reducing and Scotland's poor diet persists. However, mind-sets are beginning to shift and people are becoming increasingly concerned about obesity, poor diet and its health consequences.

A key step to improving our diets is to cut down on discretionary foods and drinks by at least half. To achieve this, the food environment must change to make it easier for people to choose a healthier diet, including fewer discretionary foods and more fruit, vegetables and fibre. Everyone, including the food and drink industry, media and government needs to play their part.

Over recent years, retailers and manufacturers have gone some way in response to government calls for change, for example on salt reduction and front of pack labelling. However, much more needs to be done to tackle eating 'out and on the go' which can contribute up to 25% of our calorie intake and is skewed towards less healthy food.

"Consumers in Scotland are now beginning to recognise the problem and their support is essential. We all need to work together – consumers, industry, Government – to provide a legacy of a healthier Scotland and that is something we must aim for."

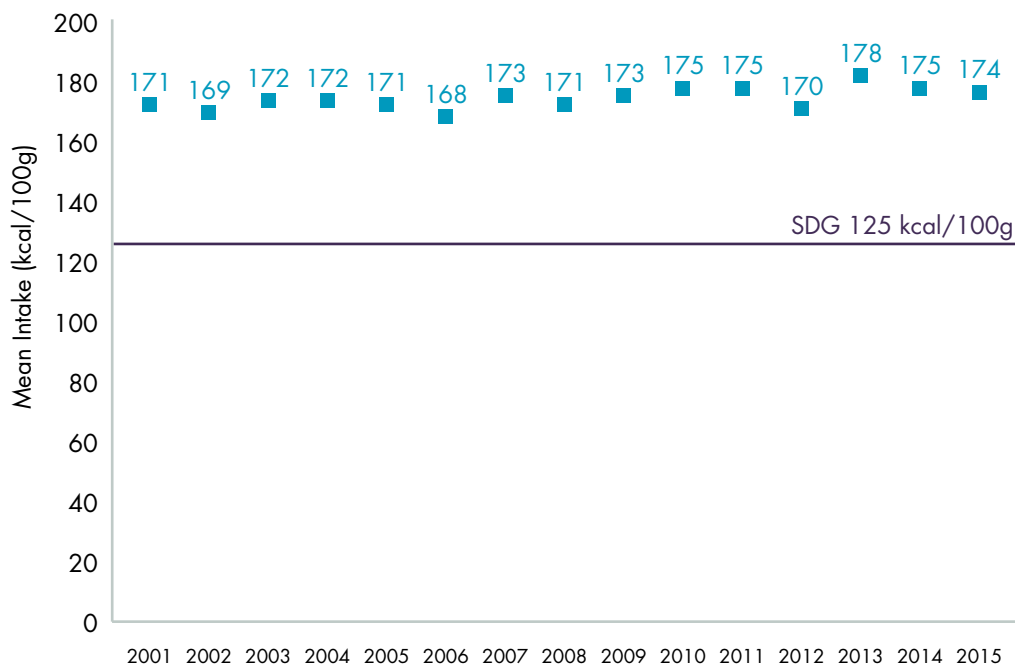
Geoff Ogle, Chief Executive Officer,
Food Standards Scotland



Appendix

Figure 1:
Mean energy density¹ (food and milk) by year 2001 – 2015 compared to Scottish Dietary Goal (125kcal/100g)²

| Scottish Dietary Goal for Energy Density | Current intake (2015) | Progress made |
|--|-----------------------|---------------|
| Decrease to 125kcal/100g per day | 174kcal/100g | No |

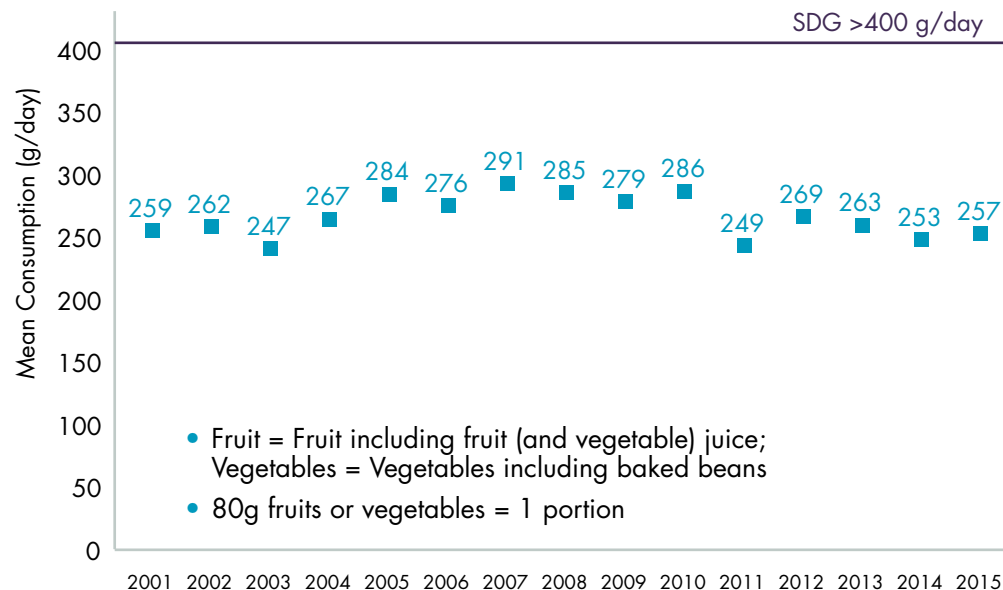


¹ Energy density, also known as calorie density, is the amount of calories in a specific weight of food, e.g. kcals per gram or per 100g. Eating an energy dense diet increases the risk of overweight and obesity.

² Food Standards Scotland. Estimation of food and nutrient intakes from Living Costs and Food Survey data in Scotland (2001 – 2015), interim report: <http://www.foodstandards.gov.scot/publications-and-research/latest-estimation-of-food-and-nutrient-intakes-interim-report>

Figure 2:
Mean fruit and vegetable consumption by year 2001 – 2015 compared to Scottish Dietary Goal (>400g/day)³

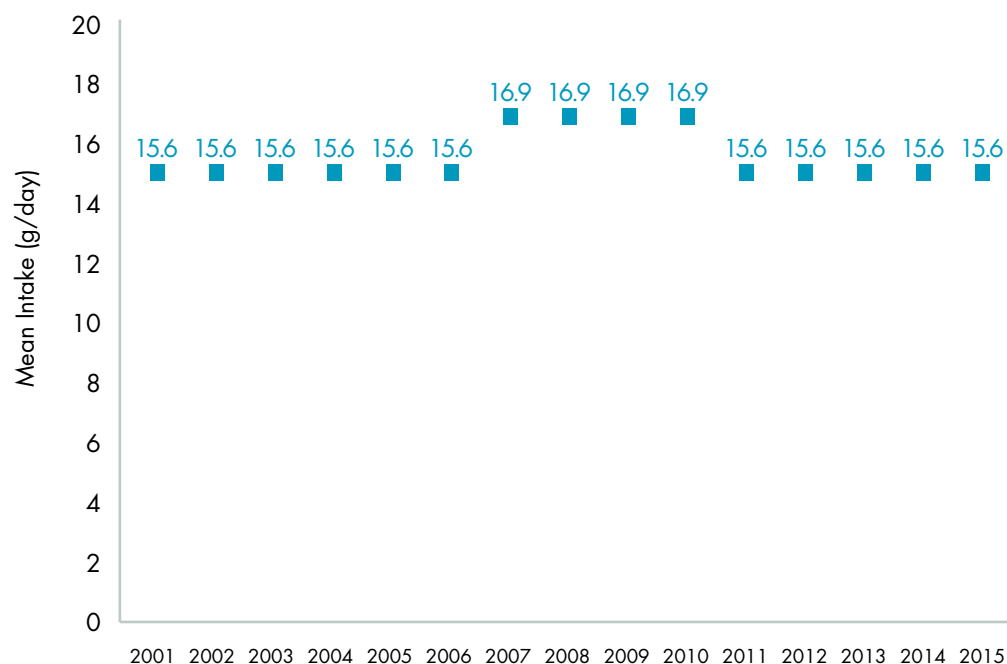
| Scottish Dietary Goals for fruit and vegetables | Current intake (2015) | Progress made |
|---|-----------------------|---------------|
| Intake to increase to 5 portions per day | 3.2 portions | No |
| | Intake (g/day) | |
| Fruit (including fruit and vegetable juice) | 124 | |
| Vegetables | 133 | |



³ Food Standards Scotland. Estimation of food and nutrient intakes from Living Costs and Food Survey data in Scotland (2001 – 2015), interim report: <http://www.foodstandards.gov.scot/publications-and-research/latest-estimation-of-food-and-nutrient-intakes-interim-report>

Figure 3:
Mean fibre⁴ intake by year 2001 – 2015 compared to Scottish Dietary Goal (30 g/day)⁵

| Scottish Dietary Goal for Fibre | Current intake (2015) | Progress made |
|-----------------------------------|-----------------------|---------------|
| Intake to increase to 30g per day | 15.6g | No |

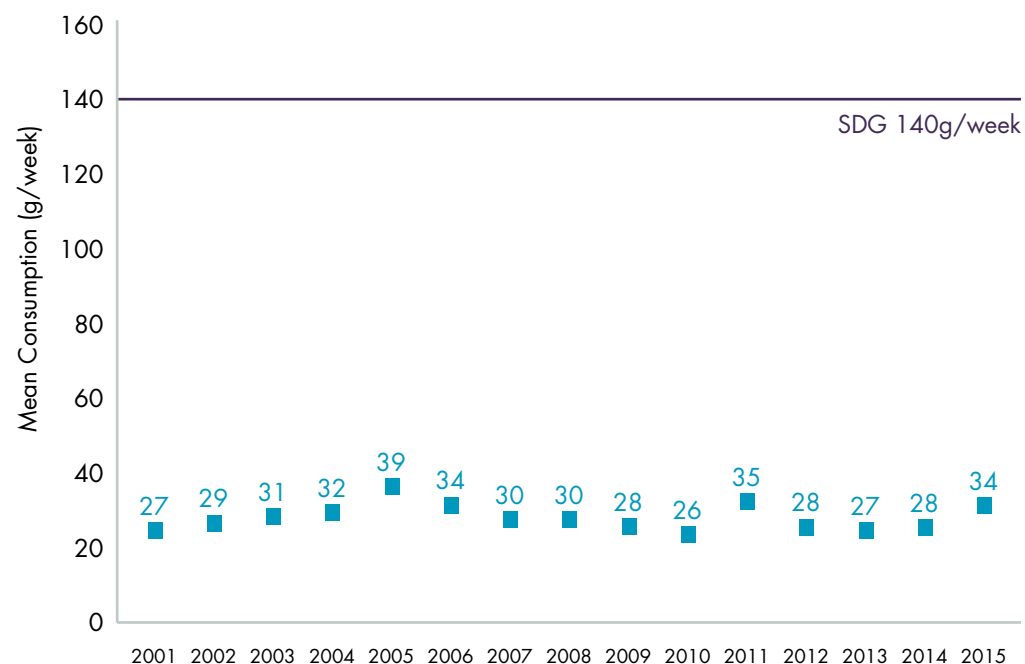


⁴ The Scottish Dietary Goal for fibre was revised in 2016 and now recommends that intakes of AOAC fibre should be increased to 30g per day for adults. The previous goal was for non-starch polysaccharide fibre, and recommended intakes of 18g per day. Current monitoring still reports NSP fibre and therefore data has been converted to AOAC fibre using a conversion factor (1g NSP = 1.3g AOAC fibre)

⁵ Food Standards Scotland. Estimation of food and nutrient intakes from Living Costs and Food Survey data in Scotland (2001 – 2015), interim report: <http://www.foodstandards.gov.scot/publications-and-research/latest-estimation-of-food-and-nutrient-intakes-interim-report>

Figure 4:
Mean oil rich fish intake by year 2001 – 2015 compared to Scottish Dietary Goal (18 g/day)⁶

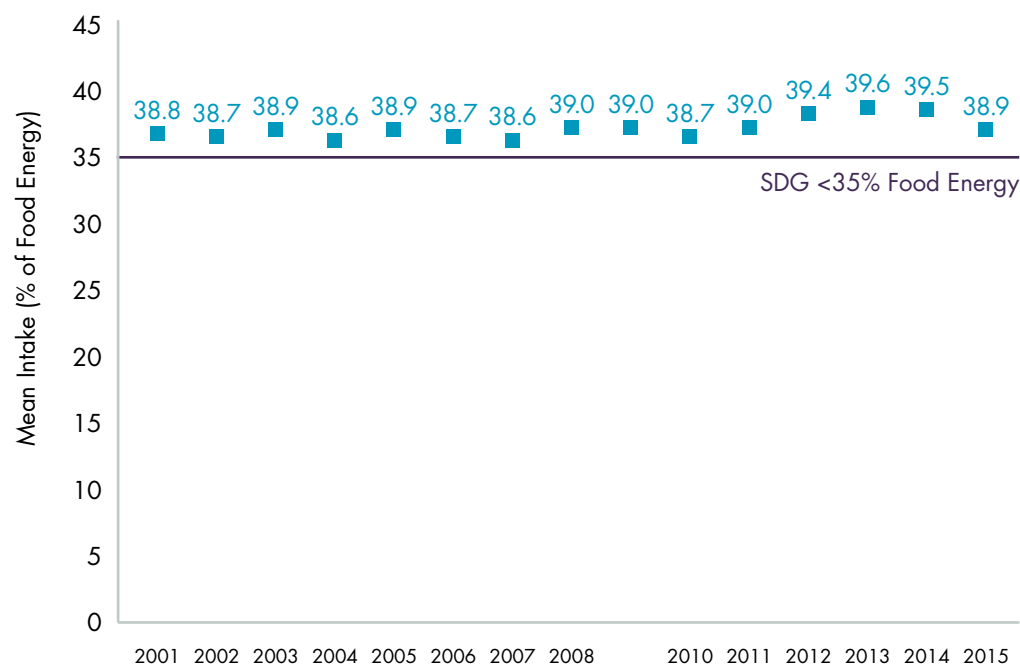
| Scottish Dietary Goal for Oil rich fish | Current intake (2015) | Progress made |
|---|-----------------------|---------------|
| Consumption to increase to one portion per person (140g) per week | 34g | No |



⁶ Food Standards Scotland. Estimation of food and nutrient intakes from Living Costs and Food Survey data in Scotland (2001 – 2015), interim report: <http://www.foodstandards.gov.scot/publications-and-research/latest-estimation-of-food-and-nutrient-intakes-interim-report>

Figure 5:
Mean fat intake by year 2001 – 2015 compared to Scottish Dietary Goal (<35% food energy)⁷

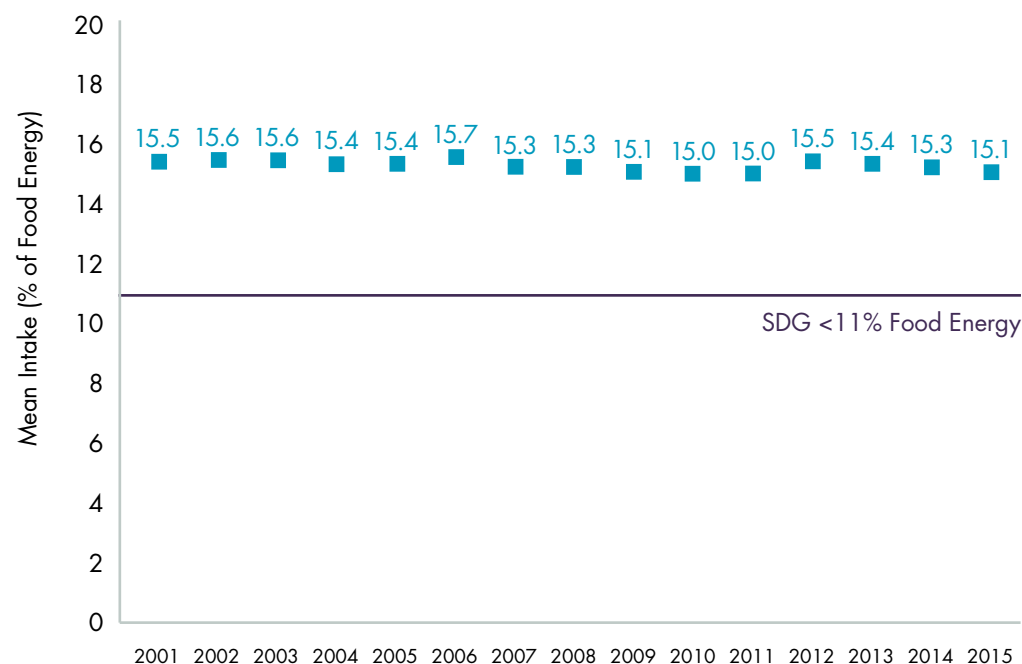
| Scottish Dietary Goal for Total Fat | Current intake (2015) | Progress made |
|--|-----------------------|---------------|
| Intake to decrease to no more than 35% food energy | 38.9% | No |



⁷ Food Standards Scotland. Estimation of food and nutrient intakes from Living Costs and Food Survey data in Scotland (2001 – 2015), interim report: <http://www.foodstandards.gov.scot/publications-and-research/latest-estimation-of-food-and-nutrient-intakes-interim-report>

Figure 6:
Mean saturated fat intake by year 2001 – 2015 compared to Scottish Dietary Goal (<11% food energy)⁸

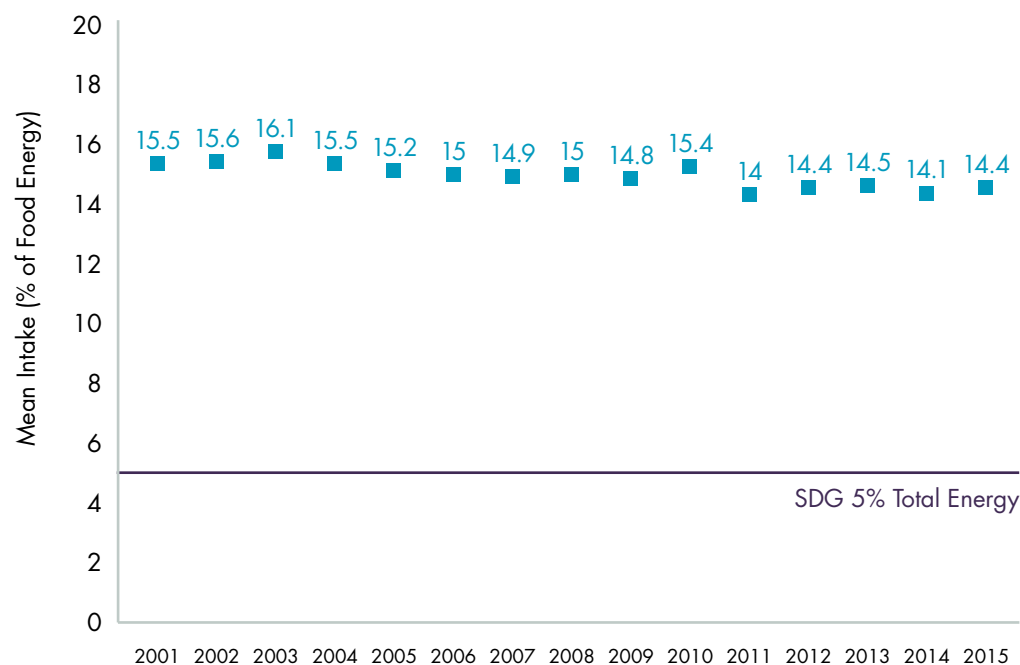
| Scottish Dietary Goal for Saturated Fat | Current intake (2015) | Progress made |
|--|-----------------------|---------------|
| Intake to decrease to no more than 11% food energy | 15.1% | Little |



⁸ Food Standards Scotland. Estimation of food and nutrient intakes from Living Costs and Food Survey data in Scotland (2001 – 2015), interim report: <http://www.foodstandards.gov.scot/publications-and-research/latest-estimation-of-food-and-nutrient-intakes-interim-report>

Figure 7:
Mean free sugars intake by year 2001 – 2015 compared to Scottish Dietary Goal (<5% total energy)⁹

| Scottish Dietary Goal for free sugars ¹⁰ | Current intake (2014) | Progress made |
|---|-----------------------|---------------|
| Intake to decrease to no more than 5% food energy | 14.1% | Little |

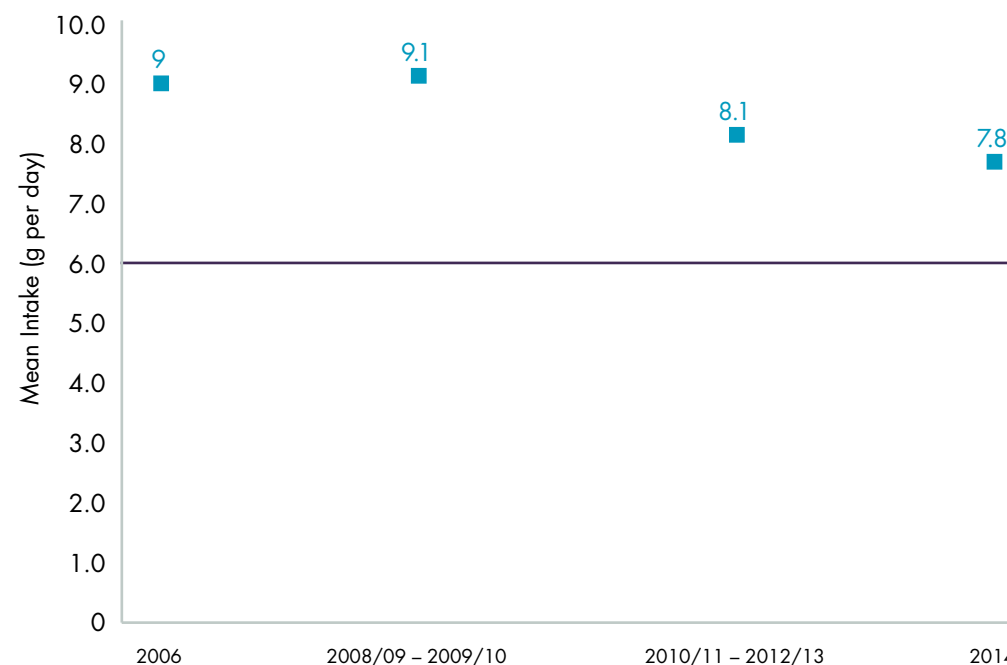


⁹ Food Standards Scotland. Estimation of food and nutrient intakes from Living Costs and Food Survey data in Scotland (2001 – 2015), interim report: <http://www.foodstandards.gov.scot/publications-and-research/latest-estimation-of-food-and-nutrient-intakes-interim-report>

¹⁰ The Scottish Dietary Goal for sugar was revised in 2016 and now recommends that intakes of free sugars should be no more than 5% of total energy. The previous goal was for non-milk extrinsic sugars and recommended that intakes were no more than 11% energy. Free sugars includes all sugars added to foods and those present in fruit juice and honey. The only difference between the definition of free sugars and NMES is that NMES also includes 50% of the sugar found in dried, stewed or canned fruit.

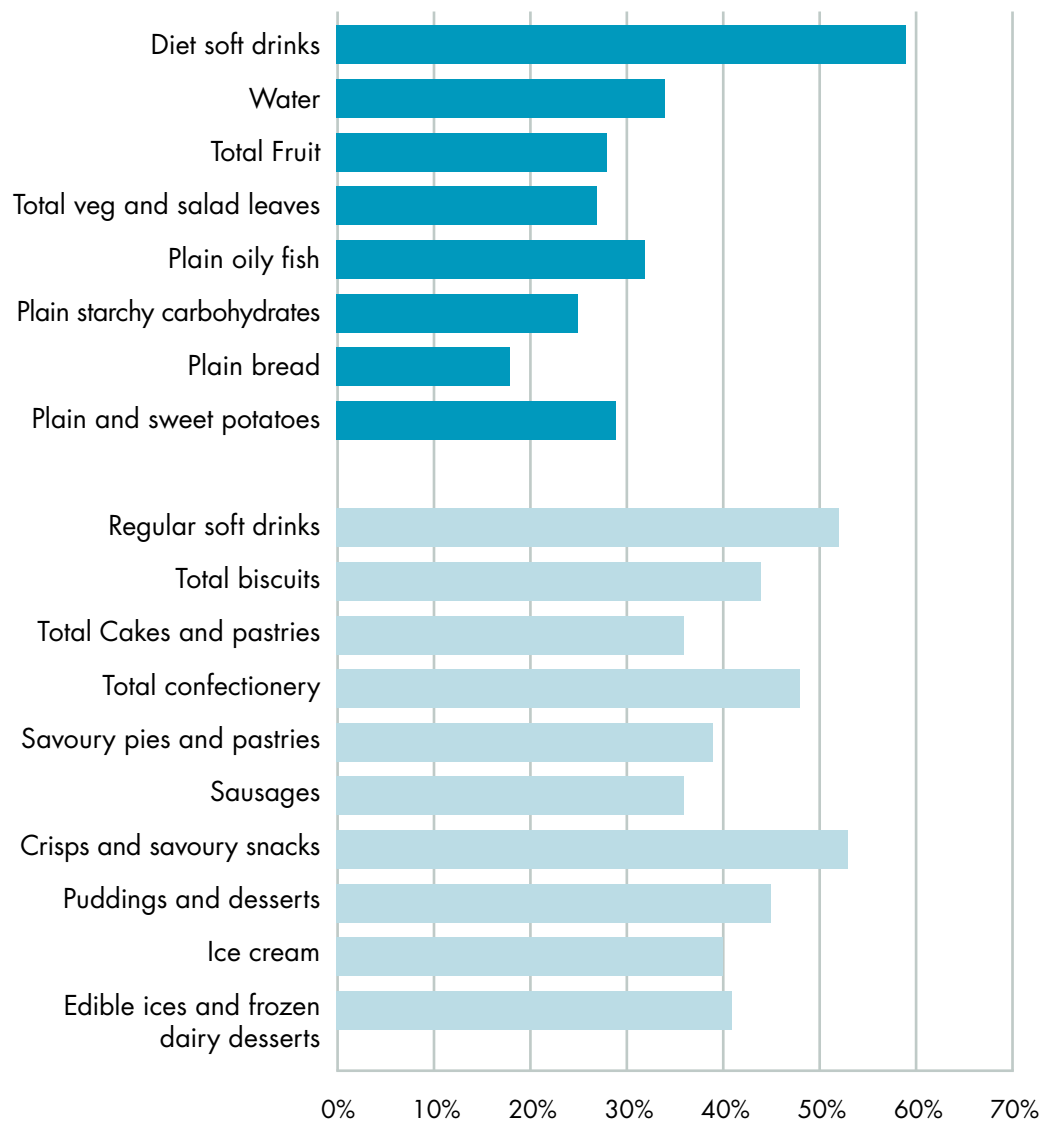
Figure 8:
Mean salt intake by year, 2006 – 2014 compared to Scottish Dietary Goal (6 g/day)¹¹

| Scottish Dietary Goal for Salt | Current intake (2015) | Progress made since 2006? |
|--------------------------------|-----------------------|---|
| No more than 6g per day | 7.8 g | Yes, intakes have reduced by 13% |



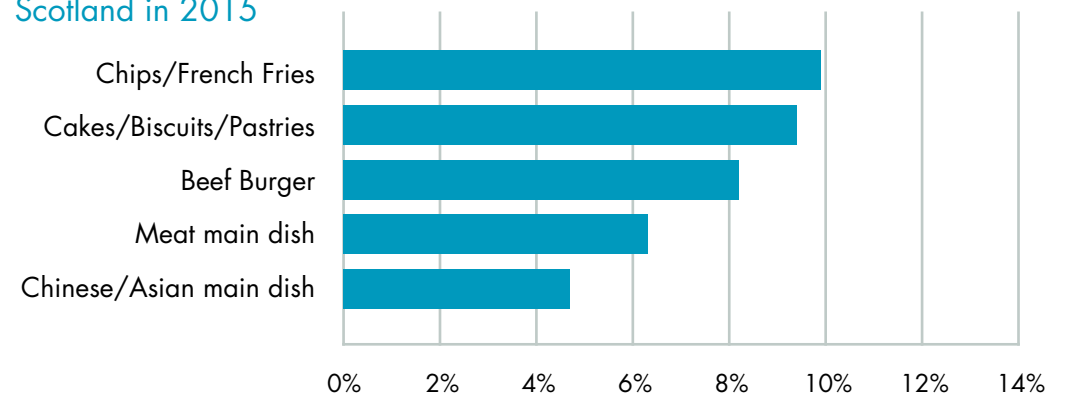
¹¹ National Diet and Nutrition Survey. Assessment of dietary sodium in Scotland, 2006-2014 (2017): <http://www.foodstandards.gov.scot/publications-and-research/national-diet-and-nutrition-survey-assessment-of-dietary-sodium>

Figure 9:
Proportion of retail purchase (volume sold) on promotion in Scotland (2016)¹²

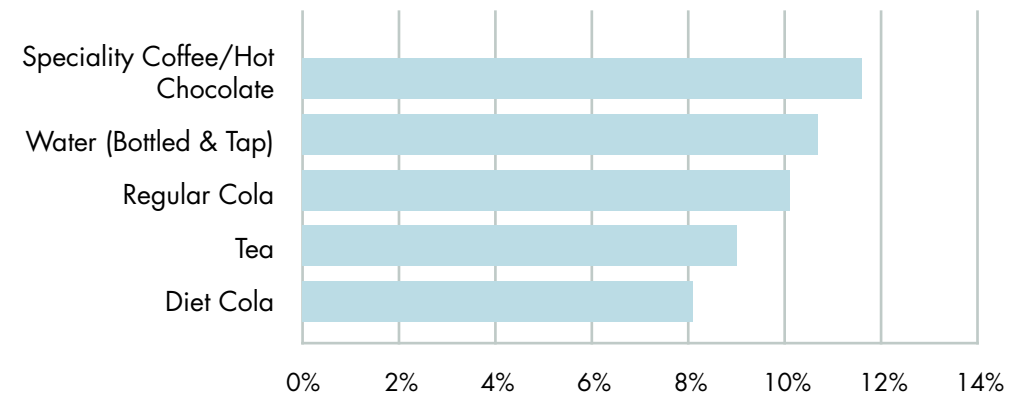


¹² Food Standards Scotland. Monitoring retail purchase and price promotion in Scotland, 2010-2016, (2018) : <http://www.foodstandards.gov.scot/publications-and-research/monitoring-retail-purchase-and-price-promotions-in-scotland-2010-2016>

Figure 10:
Foods purchased outside of the home¹³
Top 5 categories of food consumed (% incidence) out of the home in Scotland in 2015



Top 5 beverage categories consumed (% incidence) out of the home in Scotland in 2015



¹³ An assessment of the out of home food and drink landscape in Scotland (2015): <http://www.foodstandards.gov.scot/publications-and-research/an-assessment-of-the-out-of-home-food-and-drink-landscape-in-scotland>

Top 10 Food and Beverages consumed out of home by children aged 0-12 yrs in Scotland in 2015: % incidence, comparison with all ages.

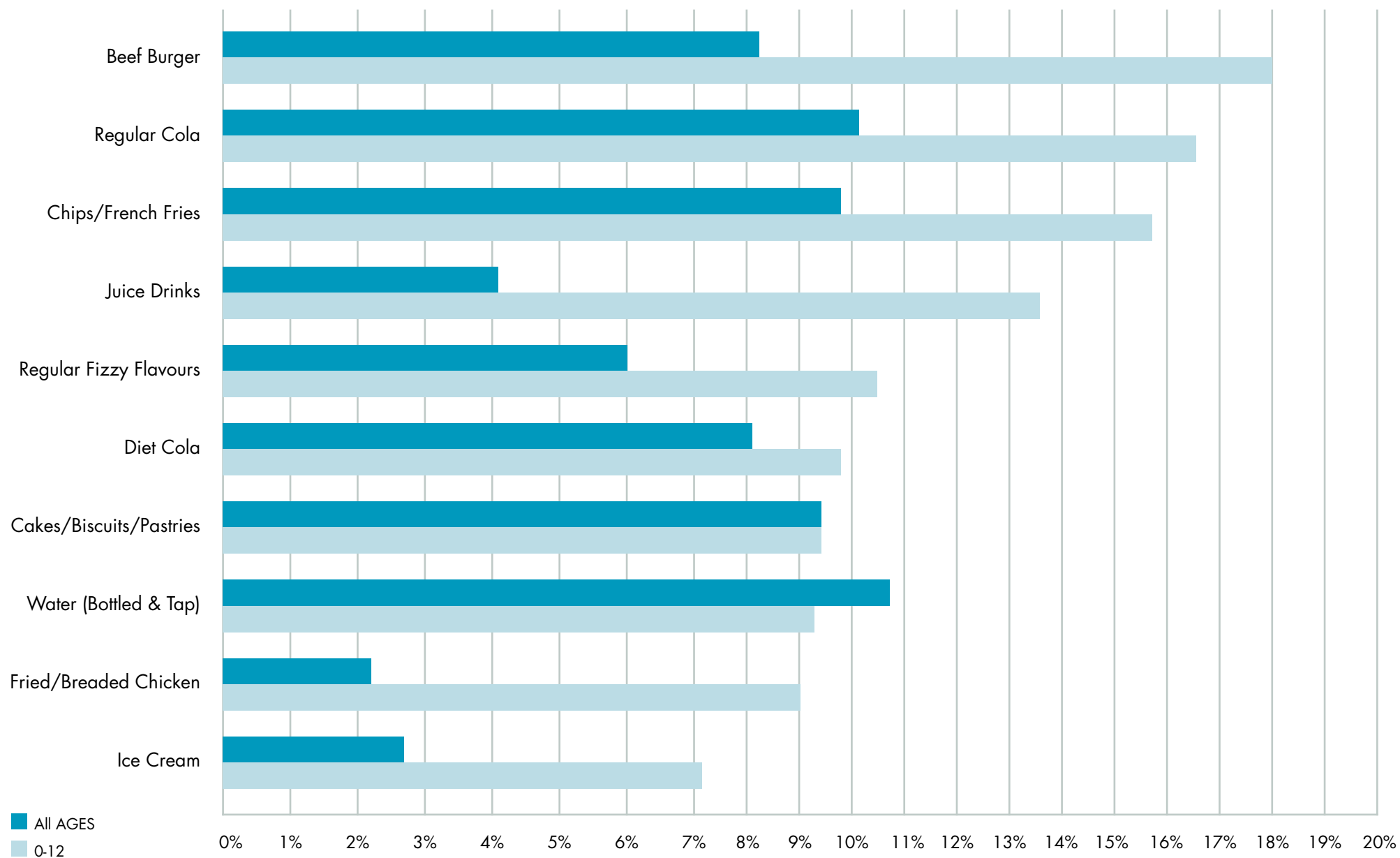
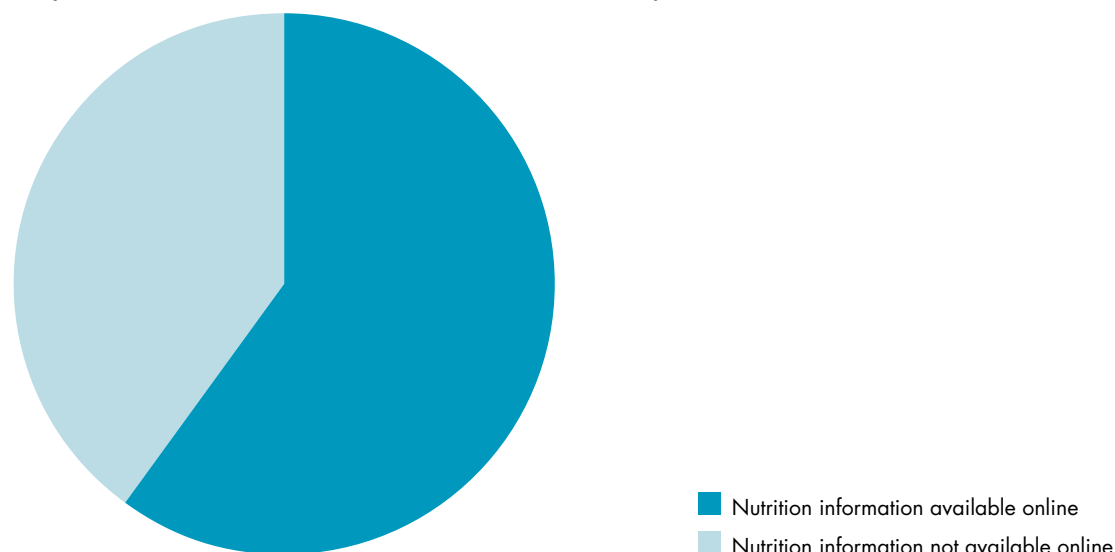


Figure 11: Marketing strategies and availability of online nutrition information in branded out of home businesses

Types of price promotion used by a sample of out of home businesses in Scotland (sample included 15 brands)¹⁴

| Type of promotion | % |
|--|----|
| Multi-buy | 36 |
| Prominent low price promotion | 29 |
| Reduced price | 13 |
| Larger size for same price/small amount more | 5 |
| Other | 16 |

Availability of online nutrition information from a sample of out of home businesses in Scotland (sample included 86 brands)¹⁵



¹⁴ Instore Marketing: Marketing strategies used within premises by out-of-home businesses (2017):
<http://www.foodstandards.gov.scot/publications-and-research/marketing-strategies-used-within-premises-by-out-of-home-businesses>

¹⁵ Informed Decisions? Availability of Nutritional Information for a Sample of Out of Home Food Outlets in Scotland (2017):
<http://www.foodstandards.gov.scot/publications-and-research/availability-of-nutritional-information-for-a-sample-of-out-of-home-food-ou>

Table 1:
How we measure up for obesity, heart disease, stroke, high blood pressure and type II diabetes.

| Condition(s) | Statistics | Dietary risk factors ¹⁶ | Link to other conditions |
|---|---|---|---|
| Overweight and obesity¹⁷ | <ul style="list-style-type: none"> 65% adults (aged 16+) either overweight or obese (67% in men and 62% in women) 29% obese. 20% adults overweight or obese in the least deprived areas, compared with 32% in the most deprived areas. 29% children at risk of overweight/obesity (28% in boys and 29% in girls) 25% children at risk of overweight and obesity in the least deprived areas, compared with 32% in the most deprived areas. | <ul style="list-style-type: none"> Excess calories | Increases risk of: <ul style="list-style-type: none"> 13 types of cancers Heart disease and stroke High blood pressure Type II diabetes |
| Coronary heart disease and stroke¹⁸ | <ul style="list-style-type: none"> 8878 deaths in 2015 (6697 deaths from coronary heart disease and 2181 from stroke) 1656 deaths from coronary heart disease in the most deprived quintile (SIMD 1) in 2016, compared to 946 deaths in the least deprived (SIMD 5). 877 deaths from cerebrovascular disease (including stroke) in the most deprived quintile (SIMD 1) in 2016, compared to 741 deaths in the least deprived (SIMD 5). | <ul style="list-style-type: none"> Not enough fruit and vegetables Not enough oil rich fish Too much saturated fat | |



Continued on next page

¹⁶ Scottish Dietary Goals (2016): <http://www.gov.scot/Resource/0049/00497558.pdf> , World Cancer Research Fund, Continuous Update Project Cancer Prevention and Survival (July 2016): <http://www.wcrf.org/sites/default/files/CUP-Summary-Report.pdf>

¹⁷ Scottish Health Survey 2016: <http://www.gov.scot/Publications/2017/10/2970>

¹⁸ Information Sciences Division Scotland. Stroke and Heart Disease statistics updates (2017): <http://www.isdscotland.org/Health-Topics/Stroke/>, <http://www.isdscotland.org/Health-Topics/Heart-Disease/>

Table 1: Continued
How we measure up for obesity, heart disease, stroke, high blood pressure and type II diabetes.

| Condition(s) | Statistics | Dietary risk factors | Link to other conditions |
|---|--|---|---|
| High blood pressure¹⁹ | <ul style="list-style-type: none"> 29% of adult population | <ul style="list-style-type: none"> Too much salt Being overweight or obese | Increases risk of: <ul style="list-style-type: none"> Coronary heart disease Stroke |
| Type II diabetes²⁰ | <ul style="list-style-type: none"> There were 257,728 people in 2016 with type II diabetes. Majority (87%) of type-II-diabetics are overweight or obese. 5 | <ul style="list-style-type: none"> Too many sugary drinks Being overweight or obese | Increases risk of: <ul style="list-style-type: none"> Coronary heart disease |
| Cancer | <ul style="list-style-type: none"> Being overweight can cause 13 types of cancer.²¹ In 2015 there were 33,476 cancer registrations in the most deprived quintile (SIMD 1) compared to 28,890 registrations in the least deprived (SIMD 5).²² | <ul style="list-style-type: none"> Eating too much red and/or processed meat Eating too much salt Not eating enough fruit or vegetables Not eating enough fibre | |



¹⁹ Scottish Health Survey 2015: <http://www.gov.scot/Publications/2016/09/2764>

²⁰ Scottish Diabetes Survey, 2016: <http://www.diabetesinscotland.org.uk/Publications/Scottish%20Diabetes%20Survey%202016.pdf>

²¹ Cancer Research UK. How being overweight causes cancer (2016): <http://www.cancerresearchuk.org/about-cancer/causes-of-cancer/obesity-weight-and-cancer/how-being-overweight-causes-cancer>

²² Information Sciences Division Scotland. Cancer Mortality update (2017): <http://www.isdscotland.org/Health-Topics/Cancer/>

Table 2:
Dental decay in primary school children:²³

| | % with obvious dental decay | % with untreated dental decay |
|------------------------------|-----------------------------|-------------------------------|
| Primary 1 (2016 data) | 31 | 24 |
| Primary 7 (2017 data) | 23 | 10 |

| | % with obvious dental decay in most deprived quintile (SIMD 1) | % with obvious dental decay in least deprived quintile (SIMD 5) |
|------------------------------|--|---|
| Primary 1 (2016 data) | 45 | 18 |
| Primary 7 (2017 data) | 34 | 13 |

²³ National Dental Inspection Programme (NDIP): <http://ndip.scottishdental.org/>



Table 3:
Consumption patterns comparing the most and least deprived²⁴

| | Scottish Dietary Goal | Population Average consumption | Consumption by most deprived ²⁵ | Consumption by least deprived |
|--|--|--------------------------------|--|-------------------------------|
| Fruit and vegetable (g) | Intake to increase to 5 portions per day | 257g (3.2 portions) | 201g (2.5 portions) | 323g (3.9 portions) |
| Oil rich fish (g/week) | 1 portion (140g) of oil rich fish per week. | 34g | 20g | 40g |
| Energy density (kcal/100g) | To decrease to 125kcal/100g per day | 174kcal/100g | 177 kcal/100g | 167 kcal/100g |
| Fat (% food energy – FE) | Intake of total fat to decrease to no more than 35% food energy | 38.9% FE | No difference | No difference |
| | Intake of saturated fat to decrease to no more than 11% food energy | 15.1% FE | No difference | No difference |
| Sugar (NMES) ²⁶ (% food energy – FE) | Intake to decrease to no more than 5% total energy | 14.4 % FE | No difference | No difference |
| Fibre (NSP) ²⁷ | Intake to increase to 18g per day | 12 g | 11.0g | 13.0g |

²⁴ Food Standards Scotland. Estimation of Food and Nutrient intakes from food purchase data in Scotland 2001 to 2015
<http://www.foodstandards.gov.scot/publications-and-research/latest-estimation-of-food-and-nutrient-intakes>

²⁵ The Scottish Index of Multiple Deprivation identifies the level of multiple deprivation in small areas across all of Scotland in a consistent way. These areas can then be grouped into deciles or quintiles. Quintile 1 refers to the fifth most deprived areas, and quintile 5 refers to the least deprived fifth.

²⁶ NMES include all the sugars naturally present in fruit juices, honey, and syrups as well as the sugars added to foods and drinks. Half of the sugars found in dried, stewed or canned fruit are also included. The sugars in milk or integrally present in the cells of food such as fruit and vegetables are not included.

²⁷ The term 'non-starch polysaccharides' refers to the fibre found within the cell walls of plants which and is not digested or absorbed in the small intestine; found in foods such as wholegrains, cereals, fruits and vegetables.

Table 3: Continued
Consumption patterns comparing the most and least deprived

| | Scottish Dietary Goal | Population Average consumption | Consumption by most deprived | Consumption by least deprived |
|------------------------------|-----------------------|--------------------------------|------------------------------|-------------------------------|
| Sugary soft drinks | n/a | 140g | 263g | 172g |
| Butter | n/a | 7.4g | 5.6g | 7.1g |
| Cream | n/a | 3.6g | 1.5g | 4.5g |
| Cheese | n/a | 15g | 12g | 17g |
| Savoury and meat pies | n/a | 9g | 12g | 7.9g |
| Sausages and burgers | n/a | 26g | 33g | 23g |
| Whole milk | n/a | 32g | 88g | 39g |
| Wholemeal bread | n/a | 15g | 16g | 24g |
| Wholegrain breakfast cereals | n/a | 12g | 7.1g | 15g |

Table 4:
Contribution of discretionary foods to consumption of energy, fats and sugar in Scotland²⁸

| Food category | % contribution to energy | % contribution to total fat | % contribution to saturated fat | % contribution to sugar (NMES) ²⁹ |
|--|--------------------------|-----------------------------|---------------------------------|--|
| Total confectionery and sweet biscuits | 4.7 + 5.3 = 10.0 | 4.5 + 5.9=10.4 | 6.3 + 7.7=14.0 | 17.9 + 8.0=25.9 |
| Sugar containing soft drinks | 2.9 | Nil | Nil | 20.8 |
| Crisps and savoury snacks | 3.4 | 4.5 | 1.6 | <1 |
| Cakes, pastries and puddings | 3.1 | 3.3 | 3.7 | 6.2 |
| TOTAL FROM DISCRETIONARY FOODS | 19.4% | 18.2% | 19.3% | 52.9% |

²⁸ Food Standards Scotland. Contribution of foods to intakes of energy and selected nutrients using food purchase data in Scotland 2013-2015 (in preparation for publication)

²⁹ NMES include all the sugars naturally present in fruit juices, honey, and syrups as well as the sugars added to foods and drinks. Half of the sugars found in dried, stewed or canned fruit are also included. The sugars in milk or integrally present in the cells of food such as fruit and vegetables are not included.

Table 5: Alcohol

Data from the National Diet and Nutrition Survey in Scotland (NDNS)³⁰

58% of men aged 19 to 64 years and 49% of women aged 19 to 64 years consumed alcohol during the diet survey. The men and women consumed on average (median) 19.3g and 14.9g alcohol/day respectively

Based on average alcohol and calorie content for standard strength lager and red wine,³¹ a man would have to drink 1.1 pints of lager per day and a woman would have to drink 0.8 glasses of wine per day to achieve that daily alcohol intake.

Per week this is equivalent to almost 8 pints of standard strength lager and almost 6 glasses of wine (1.4 bottles) providing around 1100 kcals and around 810 kcals per week, respectively.

Calculation of calories from alcoholic drinks have assumed the following:

- 1 x 25ml shot of spirit (40%) = 56 kcal and 7.9g alcohol
- 1 x 568ml pint of standard strength lager = 136 kcal and 18.2g alcohol
- 1 x 175ml glass of red wine = 133 kcal and 18.7g alcohol

³⁰ National diet and nutrition survey rolling programme results from years 1-4 (combined) for Scotland (2008/09-2011/12): <http://www.foodstandards.gov.scot/publications-and-research/national-diet-and-nutrition-survey-rolling-programme-results-from-years-1-4>

³¹ McCance and Widdowson. The composition of foods. 7th summary edition.

Table 6:
FSS wave 4 consumer tracking survey³²

| FSS wave 4 consumer tracking survey | | W1 results | W2 results | W3 results | W4 results |
|---|---|------------|------------|------------|------------|
| Consumer perceptions of their own diet | % who perceive their own diet as quite or very healthy | 53 | 56 | 51 | 59 |
| | % who agree they eat too many 'treats' every day | 41 | 46 | 50 | 47 |
| Concern around diet and obesity | % concerned with the amount of sugar in food | 86 | 89 | 90 | 91 |
| | % concerned with the amount of fat in food | 87 | 86 | 87 | 89 |
| | % concerned with the amount of saturated fat in food | 87 | 87 | 88 | 90 |
| | % concerned with the amount of salt in food | 83 | 84 | 85 | 87 |
| | % concerned about people having an unhealthy diet | 50 | 59 | 60 | 65 |
| | % who agree obesity is a serious problem in Scotland | / | 89 | / | 91 |
| Recognition of consequences of obesity | % who know that an unhealthy diet can cause lots of health problems like cancer and heart disease | 85 | 85 | 85 | 86 |
| Barriers to eating a healthy diet | % who think it is quite or very difficult to eat healthily outside the home. | / | 45 | / | 45 |
| | % who think the type of food is the most convenient to buy outside the home is usually the least healthy | / | 74 | / | 77 |
| | % concerned about food prices | 70 | 73 | 74 | 77 |
| Support for actions to improve the food environment | % who think promotional offers on high fat, salt and sugar foods should be banned | / | 46 | / | 49 |
| | % who think shops should not be allowed to place foods high in fat, sugar or salt next to checkouts | / | 54 | / | 60 |
| | % who think cafes and restaurants should display calories on menus | / | / | / | 66 |
| | % who think standard portion sizes of items such as chocolate bars, savoury snacks, crisps, sweets, cakes and muffins should be reduced | / | 38 | / | 43 |

³² Food in Scotland Consumer Tracking Survey, Wave 4 (2017): <http://www.foodstandards.gov.scot/publications-and-research/fss-consumer-trends-report-wave-4>

| NHSHS Social attitudes to obesity survey ³³ | | Results |
|--|--|---------|
| Consumer recognition of obesity | % who correctly identified (from a series of pictures) at what point a man or woman would be classified as obese | 27 |
| Consumer perception of responsibility for reducing levels of obesity | % who believe that reducing levels of obesity is both an individual and collective responsibility | 82 |
| Recognition of consequences of unhealthy diet and obesity | % who think that most people who are overweight put on weight because of the type of food they eat | 91 |
| | % who agree that obesity harms Scotland a great deal or quite a lot | 69 |
| Barriers to eating a healthy diet | % of those on the lowest incomes who think that healthy food is too expensive | 50 |
| | % who think that cheap fast food is too easily available | 91 |
| Support for actions to improve the food environment | % who support a tax on sugary drinks | 62 |
| | % who support shops not allowed to place unhealthy foods next to the checkout | 66 |
| | % who support action to place limits on levels of sugar, fat and salt in foods and drinks | 82 |
| | % who support reducing portion sizes of unhealthy drinks or snacks | 57 |

³³ NHS Health Scotland. Public attitudes to reducing levels of overweight and obesity in Scotland: <http://www.healthscotland.scot/publications/public-attitudes-to-reducing-overweight-and-obesity-in-scotland>

Table 7:
Reduction in intakes of discretionary foods

Calculations for reducing intakes of discretionary foods and drinks are based on current contributions of discretionary foods and drinks to calories³⁴ and eatwell everyday, a published model of a healthy balanced diet. The recommendation for no more than 5% energy from free sugars means that there are very few discretionary foods within eatwell everyday. Therefore, the 50% reduction is a first step, as we should actually be eating much less.

Calculations for 7 year old boy's intake of discretionary foods

Intakes of discretionary foods in 4 – 10 year old boys in Scotland³⁵

| | Intake (g/day) | Intake (g/year) |
|--------------------------------------|----------------|-----------------|
| Biscuits | 15 | 5475 |
| Buns, cakes, pastries and fruit pies | 17 | 6205 |
| Sweet confectionery | 11 | 4015 |
| Chocolate confectionery | 12 | 4380 |
| Savoury snacks | 11 | 4015 |
| TOTAL | 66 | 24,090 |

³⁴ Food Standards Scotland. Contribution of foods to intakes of energy and selected nutrients using food purchase data in Scotland 2013-2015 (in preparation for publication)
<https://www.foodstandards.gov.scot/publications-and-research/publications/latest-estimation-of-food-and-nutrient-intakes>

³⁵ National diet and nutrition survey rolling programme results from years 1-4 (combined) for Scotland (2008/09-2011/12): <http://www.foodstandards.gov.scot/publications-and-research/national-diet-and-nutrition-survey-rolling-programme-results-from-years-1-4>

Median weight of boys and girls aged 4 – 10 years, based on WHO growth standards³⁶

| Age | Median weight (kg), boys and girls |
|-----|-------------------------------------|
| 4 | 16.3 kg for boys, 16.0 kg for girls |
| 5 | 18.6 kg for boys, 18.2 kg for girls |
| 6 | 21.0 kg for boys, 21.0 kg for girls |
| 7 | 23.0 kg for boys, 23.0 kg for girls |
| 8 | 26.0 kg for boys, 26.0 kg for girls |
| 9 | 29.0 kg for boys, 29.0 kg for girls |
| 10 | 31.5 kg for boys, 32.0 kg for girls |

³⁶ Adapted from: Scientific Advisory Committee on Nutrition. Dietary Reference Values for Energy, table 8 (2011), <https://www.gov.uk/government/publications/sacn-dietary-reference-values-for-energy>

Food Standards Scotland

Food Standards Scotland is the food body for Scotland and is here to promote healthier eating, to keep the food we eat safe and to make sure we know the food we're eating is what it says it is on the label.

Food Standards Scotland's nutrition remit – to put the consumer first in improving the Scottish diet – commits us to working with government, the food industry, health professionals and the media as well as the public themselves to achieve healthier eating in Scotland.

To read more about what we do and to keep up to date with our news, visit

www.foodstandards.gov.scot

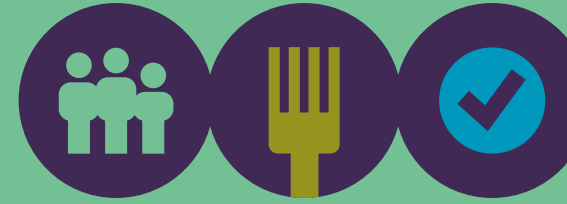
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