POC5 635939

Andrew Miller MP
Science and Technology Committee
House of Commons
London
SW1P 3JA

Dear Andrew,

28 August 2011

Thank you for your letter of 1 August regarding the evidence base underpinning the alcohol and dietary advice provided by Government and its public bodies.

As requested, I am providing the attached note which addresses the following questions:

1. What are the Government’s recommendations to the public on consumption of salt, sugars, saturated fats, fruit and vegetables, meat and fish, dairy products, carbohydrates and vitamin and mineral supplements?
2. How do the recommendations generally vary by age and gender?
3. What evidence are the recommendations based on?

I would be happy to provide further detail if the committee decides to scrutinise the Government’s dietary advice later in the session.

Following the Science and Technology Committee inquiry on alcohol guidelines, written evidence on alcohol advice has been commissioned and will be sent to the committee by 14th September 2011.

Best wishes,

[Signature]

ANNE MILTON
The Committee is interested in the evidence base underpinning dietary and alcohol advice provided by Government and public bodies. As you may be aware, the Committee recently announced an inquiry into the evidence base for alcohol advice and we look forward to receiving evidence from your Department on this important issue.

Looking further ahead, the Committee may wish to scrutinise dietary advice provided by Government later in the session. To assist our deliberations it would assist the Committee, if the Department could supply a note responding to the following questions.

1. What are the Government’s recommendations to the public on consumption of: salt, sugars, saturated fats, fruit and vegetables, meat and fish, dairy products, carbohydrates and vitamin/mineral supplements?

2. How do the recommendations generally vary by age and gender?

3. What evidence are the recommendations based on?

It would be of considerable assistance to have the note by 7 September. The Committee may publish the note.
Note on the Government’s recommendations on diet and nutrition

Government recommendations on diet and nutrition are guided by the Scientific Advisory Committee on Nutrition (SACN), an independent panel of experts (or advice from its predecessor the Committee on Medical Aspects of Food Policy (COMA), which advises the government on all matters relating to nutrition. SACN members are appointed in accordance to guidance set by the Office of the Commissioner for Public Appointments (OCPA), and include scientific and medical experts, a lay member, and consumer and industry representatives. SACN review a large body of scientific evidence in accordance with a framework for risk assessment and consider the totality of the evidence in reaching conclusions and providing advice to Government. http://www.sacn.gov.uk/pdfs/sacn_framework_03_03_09.pdf).

Government advice on a healthy balanced diet is to include plenty of fruit and vegetables (at least 5 portions of a variety every day), plenty of starchy foods, such as bread, rice, potatoes, and pasta, choosing wholegrain varieties whenever possible, some milk and dairy foods, some meat, fish, eggs, beans and other non-dairy sources of protein and just a small amount of foods and drinks high in fat and/or sugar. Our view is that vitamin and mineral supplements are no substitute for good eating habits. If people choose to take supplements it is important to know that taking too much or taking them for too long can cause harmful effects.

Government recommendations to the public on consumption of salt, sugars, saturated fats, fruit and vegetables, meat and fish, dairy products, carbohydrates and vitamin and mineral supplements and the evidence on which this is based is outlined below. Information to the public can be accessed via the NHS choices website.

1. Salt
The Government recommends that average intakes of salt for individuals aged 11 years and over should not exceed 6g per day. For children under 11 years of age, daily maximum levels for average salt consumption vary according to age: 0-6 months, less than 1g; 7-12 months, 1g; 1-3 years, 2g; 4-6 years, 3g; 7-10 years, 5g.

Eating too much salt can raise blood pressure. High blood pressure (hypertension) is a major risk factor in the development of cardiovascular disease (CVD). The Department’s recommendation to consume no more than 6g/day of salt (and lower amounts for children under 11 years) is based on advice from SACN, which was published in 2003. The
Committee considered a wide range of published scientific evidence (approximately 200 studies) on the relationship between salt and hypertension and concluded that a reduction in the average population salt intake would proportionally lower population average blood pressure levels and that this would confer significant public health benefits by contributing to a decrease in the burden of CVD. The evidence considered by SACN is described in detail in their report, *Salt and Health* (2003) (available at http://www.sacn.gov.uk/reports_position_statements/reports/salt_and_health_report.html).

The Department of Health is working with stakeholders to reduce salt intake through the Public Health Responsibility Deal and salt targets have been agreed for over 80 categories of food to be met by the end of 2012. This will deliver a further reduction of 1g per person per day compared to 2007 salt levels in food. http://www.dh.gov.uk/en/Publichealth/Publichealthresponsibilitydeal/index.htm
2. Carbohydrates

Starchy foods are the main source of carbohydrate in the diet and the government recommends that people should base their meals on these foods. Starchy foods include potatoes, bread, cereals, rice, pasta and pulses and it is recommended that starchy foods should make up about a third of the food eaten in a day. This advice is applicable to everyone from the age of 5 years.

As children from 2-5 years are introduced to family meals, it is recommended that they gradually shift to basing their meals on starchy foods.

Starchy foods, as well as sugars naturally occurring in fruits and vegetables, should replace fat as the energy source because they contain fewer calories than fat and are often high in fibre.

Wholegrain starchy foods are particularly good sources of fibre; fibre also being a type of carbohydrate. Diets high in fibre help to maintain normal bowel function. However, it is important not to give only wholegrain foods to young children, as they may fill them up before they get all the nutrients and calories they need.

The advice on starchy foods is based on considerations by the Committee on Medical Aspects of Food Policy (COMA) in the following reports: Diet and Cardiovascular Disease (1984), Dietary Reference Values for Food and Energy and Nutrients for the United Kingdom (1991) and COMA Nutritional Aspects of Cardiovascular Disease (1994).

SACN is currently reviewing the evidence on carbohydrates and health. The Government will review and update its current recommendations on carbohydrates following publication of the SACN report in 2013. The working group terms of reference, agendas and minutes can be found at http://www.sacn.gov.uk/meetings/working_groups/carbohydrate/index.htm
3. Sugars

The Government recommendation is that non-milk extrinsic sugars (i.e. those added to foods e.g. sucrose) should be no more than 60g/day or 11% of food energy. It is also recognised that frequent consumption of sugary foods can lead to poor oral health and can contribute significantly to the amount of energy consumed. Therefore, general advice is that sugary foods should be eaten sparingly across all age groups and should not be given to babies.

This advice is based on the evidence on the risk of dental caries, which was considered by COMA in their report on Dietary Sugars and Human Disease (1989). COMA concluded that to reduce the prevalence of dental caries in the UK it is necessary to reduce the amount and frequency of consumption of non-milk extrinsic sugars.

SACN is currently reviewing the evidence on carbohydrates and health (see above), which includes sugars. Once SACN has reported in 2013, the government will review its advice on sugar intake and update its recommendations.

4. Saturated fat

The Government recommends that people should consume on average no more than 11% of food energy as saturated fat. This advice is based on recommendations from the Committee on Medical Aspects of Food Policy (COMA) (1994) and is in line with World Health Organisation (WHO) recommendations on reducing the risk of diet related chronic disease (WHO, 2003).

The totality of the scientific evidence suggests, on balance, that reducing dietary saturated fat intake may reduce the risk of developing heart disease. Foods high in saturated fat raise blood low density lipoprotein (LDL)-cholesterol levels, which are directly associated with greater risk of developing heart disease.
5. **Fruit and vegetables**

The Government recommendation is to eat at least 5 portions of a variety of fruit and vegetables a day. This is because different fruits and vegetables contain different combinations of fibre, vitamins, minerals and other nutrients. A portion is 80g of fruit or vegetables.

This advice is based on a report by COMA in 1994 on Nutritional Aspects of Cardiovascular Disease, which concluded that fruit and vegetables help to protect against CVD, and that people in the UK should increase the amount they eat to at least 5 portions a day. This is in line with the WHO recommendation of eating 400-500g per day to reduce the risk of coronary heart disease, stroke and high blood pressure (WHO 2003).

6. **Meat and Fish**

The Government recommends that some meat and fish should be consumed as part of a healthy balanced diet. Red meat (e.g. beef, lamb, pork) is a good source of iron and other minerals however there is evidence that a high consumption of red and processed red meat probably increases the risk of colorectal cancer. The government therefore advises high consumers (over 90g/day cooked red meat) to consider reducing their intake to the population average of 70g/day.

The Government recommends consuming two portions of fish a week, of which one should be oily. Due to the possible harmful effects of contaminants present in fish as a result of environmental pollution Government recommendations state that girls and women who might have a child in the future and women that are pregnant or breastfeeding, can have up to two portions of oily fish a week. Whereas, other women, boys and men can consume up to four portions of oily fish a week. On balance, the UK populations should be encouraged to increase fish consumption as the majority of the population does not consume enough fish as present.

**Meat**

The Government recommendation on red meat consumption is based on, the Scientific Advisory Committee on Nutrition (SACN report on Iron and Health (SACN 2010). As part of their consideration of the risk between high iron intakes and colorectal cancer risk, SACN also considered the relationship between meat and colorectal cancer (because
meat is a source of iron in the UK diet) and the consequences of reducing meat intakes on iron status. SACN found that the evidence on red and processed meat and colorectal cancer risk since COMA had last looked at the issue in 1998 generally supports the association between red and processed meat consumption and colorectal cancer risk.

SACN was unable to quantify the amount of red and processed meat that may be associated with increased colorectal cancer risk due to the limitations and inconsistencies in the data. SACN therefore advise adults with relatively high intakes of red and processed meat, i.e. over 90g/day, to consider reducing their intakes to the adult population average of 70g/day. Such a reduction would not have a significant impact on population iron intakes.

The Government does not have specific advice on consumption of poultry but recommends consuming it as part of a healthy balanced diet.

**Fish**
The Government recommends consuming two portions of fish a week, of which one should be oily.

Current Government advice on fish consumption is based on a report by SACN and the Committee on Toxicity (COT) ‘Advice on fish consumption: benefits and risks’, published in 2004 (SACN 2004). The report is a thorough and comprehensive assessment of the scientific evidence on the risks and benefits of fish consumption. [http://www.sacn.gov.uk/reports_position_statements/reports/advice_on_fish_consumption_benefits__risks.html](http://www.sacn.gov.uk/reports_position_statements/reports/advice_on_fish_consumption_benefits__risks.html)

SACN also noted that it may be beneficial for some individuals to consume more than the guideline recommendation, however the evidence was insufficient to identify a level.

**7. Dairy Products**

The Government recommends that adults should consume milk and other dairy products as part of a healthy and balanced diet. Milk and dairy products should make up around 12% of the diet. It is also recommended that people choose low fat dairy products where possible, as part of a strategy to reduce population energy and fat intakes.

Children should not be given cow’s milk as a main drink until they are one year old. Full-fat milk and dairy products should be given to children
until they are two years old, as up to this age they need the extra calories and vitamins that full-fat varieties provide. Semi-skimmed milk can be introduced from two years of age, provided the child is a good eater and is growing well. Skimmed milk is not suitable for children under five years old.

The recommendation reflects the nutritional value of milk and dairy products in the diet as important sources of energy, protein and calcium, particularly for growing children and young adults in relation to dental and bone health.

8. Vitamins and Mineral supplements

Current Government advice is that a healthy, balanced diet which includes plenty of fruit, vegetables and starchy foods, and moderate amounts of dairy products, meat, fish and other protein will provide all the nutrients that most people need without having to take vitamin or mineral supplements.

However, there are certain groups of the population for whom the Government provides specific advice on food supplements:

- Women planning a pregnancy and pregnant women (from the time they stop using contraception until the 12th week of pregnancy) should take a daily dietary supplement of 400 micrograms (0.4 milligrams) of folic acid and they should eat plenty of folate-rich foods to reduce the risk of neural tube defects, such as spina bifida, in babies.

- The following people should take a daily 10 microgram vitamin D supplement:
  - all pregnant and breastfeeding women
  - all people aged 65 and over
  - people who are not exposed to much sun, for example those who cover up their skin for cultural reasons, who are housebound or confined indoors for long periods
  - people with darker skin such as people of African-Carribean and South Asian origin

- From the age of six months to five years, most young children should be given vitamin drops (A, C, and D). These may be available free of charge from health clinics through Healthy Start for children under 5 years of age in families receiving Income Support, an income-based Job Seekers' Allowance, or Child Tax Credit.
Pregnant women, or women who might become pregnant, should not take supplements containing vitamin A (including fish liver oils) except on the advice of their GP. This is because there is a link between very high levels of retinol (a source of vitamin A) and some birth defects. As an additional precaution, pregnant women should not eat liver or liver products because these are a very rich source of retinol.

In 1991, the Committee on Medical Aspects of Food Policy (COMA), a group of scientific experts who advised the government on nutritional issues, set updated reference values for intakes of nutrients for the UK population in their report "Dietary Reference Values for Food Energy and Nutrients for the United Kingdom".

In 2003, the Expert Group on Vitamins and Minerals, an independent expert advisory committee advised on safe levels of intakes of vitamins and minerals in food supplements and fortified foods. Their review covered both nutritional and toxicological assessments and safe upper levels were recommended where appropriate.

The recommendation on folic acid for women planning a pregnancy and pregnant women is based on the COMA report on folic acid and disease prevention (2000) which concluded that the risk of neural tube defects can be reduced by increasing the intake of folic acid. In 2005, SACN endorsed this recommendation in their report “Folic acid and disease prevention”
http://www.sacn.gov.uk/reports_position_statements/reports/report_on_folate_and_disease_prevention.html

Recommendations on vitamin D are based on advice from COMA (1991) who concluded that most adults and older children should be able to obtain enough vitamin D though exposure to sunlight, but set recommended intakes for vitamin D for pregnant and breastfeeding women, as well as infants and young children. COMA recommended that these groups should receive supplementary vitamin D in order to achieve these recommended intakes.

More recently, a summary of the evidence in relation to vitamin D and health was published in 2007 by SACN,
http://www.sacn.gov.uk/reports_position_statements/position_statements/update_on_vitamin_d_-_november_2007.html. SACN acknowledged that low vitamin D status in the UK is a particular problem in pregnant and breastfeeding women, infants, the elderly and black and ethnic minority groups, and endorsed COMA’s previous supplement recommendations.
SACN has recently commenced a full risk assessment on vitamin D and health and are due to report in late 2014. Details of the vitamin D working groups terms of reference are available at http://www.sacn.gov.uk/meetings/working_groups/vitamin/index.html

COMA recommended vitamin supplements for pregnant and breastfeeding women and children under the age of 5 years in their report "Weaning and the Weaning Diet" (1994).

In 1999, COMA reviewed the previous Welfare Food Scheme and concluded that it retained great potential for improving the health of pregnant women, mothers and young children from nutritionally vulnerable sectors of the population, and that the provision of free vitamin supplements offers a simple and potentially effective means of preventing adverse nutritional outcomes. Therefore supplements continue to be provided to pregnant or breastfeeding women and children under 5 years of age in low-income families as part of the Healthy Start scheme. Tablets containing vitamins C, D and folic acid (now in place of vitamin A) are available for women and drops containing vitamins A, C and D are available for children.

Government advice on vitamin A is based on SACNs review of dietary advice on vitamin A (2005). SACN advised that based on evidence for teratogenic risk of retinol, pregnant women or women planning to become pregnant should not to consume liver, liver products or supplements containing retinol.

9. Infant feeding (0-12 months) and young child feeding

The Government provides specific advice for infants and young children feeding. Recommending exclusive breastfeeding for around the first six months of a baby’s life. Solid foods should be introduced at about six months of age, and the Department recommends that breastfeeding continues beyond this time, alongside appropriate types and amounts of solid foods.

The amount and variety of solid foods should be gradually increased and the number of milk feeds decreased until the child is used to eating a wide range of ordinary foods. The diet should be progressively diversified so that by the age of 5 years children are eating healthy family meals.

Evidence for basis of recommendations

Breastfeeding advice is based on recommendations published by the World Health Organization in 2001, “The optimal duration of exclusive
breastfeeding: Report of an Expert Consultation” which was subsequently endorsed by SACN in 2001.

Government advice on infant and young child feeding is largely informed by a report by COMA entitled ‘Weaning and the Weaning Diet’ (1994). SACN has commenced a comprehensive review of the scientific evidence underpinning UK infant and young child feeding policy.