

## NUTRIENT-BASED STANDARDS FOR SCHOOL LUNCHES

### Summary of correspondence between Verner Wheelock and the Secretary of State for Schools, Children and Families The Right Honourable Ed Balls MP

#### VW objection 1

The Dietary Reference Values (DRVs) which have been used as a basis for the Standards are essentially best estimates. It is virtually impossible to determine definitive values. The group which devised the DRVs pointed out that “For most nutrients the Panel found insufficient data to establish the DRVs with any great confidence” <sup>(1)</sup>.

#### Reply

*They (the DRVs) relate to groups of people and to the average needs for energy and nutrients over weeks or months. It is internationally accepted practice to use DRVs as the benchmark for setting nutrient requirements for populations, for the assessment of dietary adequacy, to provide guidance on menu planning, and for food labelling purposes.*

#### Comment from VW

It is a huge step to move on from menu planning to a legislative requirement for caterers to do calculations on the nutrient content of the menus they prepare. It is also relevant to point out that this approach has been evaluated in a report by the World Health Organisation <sup>(2)</sup>. which comments as follows:

“The quantitative definition of nutrient needs and efforts to express them as RNIs, have received the attention of international bodies and of nutrition scientists in many countries. **This nutrient-based approach is commonly misapplied, however, and has led to considerable confusion amongst policy-makers in both food and health sectors, as well as among nutrition educators and consumers**” RNI - Recommended Nutrient Intake is one of the DRVs.

The problems encountered by the implementation of the Nutrient-based Standards for School Lunches provide ideal support for the conclusions of the WHO report.

## **VW objection 2**

In order to select which nutrients should be included as a Standard it is necessary to know what children are eating. Apparently the rationale is that any inadequacies in the diet can be partially rectified by ensuring that the school lunch compensates for them.

However, the quality of data on food intake of school children is not particularly good. The last major survey was over 10 years ago, and patterns of consumption have probably changed since then. Even if reliable data are available, the fact remains that there are considerable differences between individuals in what they consume. This is related to a variety of factors including location, social class and size of household.

## **Reply**

*In terms of which nutrients and foods should have standards, the School Meals Review Panel (SMRP, 2005) used secondary analyses of the National Diet and Nutrition Survey of young people age 4-18 years carried out in 1969, and the 2004 survey of secondary school meals in England.*

## **VW comment**

No attempt to respond by my comment on “quality of data”. Furthermore the NDNS data do not provide any justification for including protein, iron, calcium, vitamin A, vitamin C and folate in the Standards for primary schools.

### **VW objection 3**

The Standards refer to the total amount of a nutrient which is present in the food. However, the crucial issue is the ability of the body to utilise the nutrient (i.e. the bioavailability). This can be considerably less than 100%. Furthermore, the bioavailability is influenced by a variety of factors. For example, the bioavailability of iron varies between <1% and >50%. Haem iron, which originates from meat, fish and eggs, is 2-3 times more readily absorbed than non-haem iron which is present in plant and dairy products.

### **Reply**

*The standards refer to the total amount of nutrient which is present in food, not to bioavailability.*

### **VW comment**

No attempt to deal with my objection. This is especially relevant to adolescent girls who may not have an adequate intake of iron and also be vegetarians. There is a strong possibility that even if the diet meets the Standard for iron that because of low bioavailability the food will not be able to provide enough iron to meet the requirement.

#### **VW objection 4**

There is wide variation in the nutritional content of all foods. This depends on age, breed-variety, conditions of production and conditions of storage, to name but a few. The only way to obtain accurate, reliable data is to do a chemical analysis of a sample of the various foods which are used. In practice, this is not possible, and so data from sources such as McCance & Widdowson<sup>(3)</sup> have to be used. Hence, the value used in the calculation can differ significantly from the 'true' value of the food used in the school meal. For example, the content of fat in minced lamb can vary between 8.1% and 22.8%.

Food manufacturers are allowed a tolerance of  $\pm 20\%$  when labelling products which have a fat content above 5%<sup>(4)</sup>. If we assume that the specification for lamb mince is 15% then in practice the value could legitimately lie between 12% and 18%.

#### **Reply**

*The nutrient content of food provided can vary from the values stated in the tables. They are averages based on food selected using appropriate sampling protocols. Used properly, food composition tables provide a helpful guide to the average nutrient content of foods. The nutrient-based standards relate to the estimated nutrient content of foods provided in a menu cycle, typically three or four weeks. Provided schools are able to show that the menus meet the standard over a given cycle, small variations in the nutrient composition of foods will not materially affect these calculations.*

#### **VW comment**

What exactly is meant by "small variations"? In my opinion it would not be feasible for caterers to be expected to meet tolerances which are smaller than those required for the labelling of manufactured foods. As I have mentioned above, a tolerance of  $\pm 20\%$  for fat can result in huge variation in the nutritional composition of menus.

Incidentally, the labelling tolerances for water soluble minerals and vitamins (e.g. iron, zinc and vitamin C) are -50% to +100%.

In other words, a product which is labelled with 10 units can actually contain anywhere between 5 and 20!

## VW objection 5

Even if it is possible to provide meals which comply with the Standards, there is no guarantee that the pupils will actually consume them. This has been confirmed by Dr Lisa Gatenby of Trinity and All Saints College in Leeds who has conducted research in Hull on this topic.

## Reply

*The nutrient-based standards relate to the provision and not the consumption of school lunches. Provision described the food and drink available for selection by pupils and the 'provision mix' describes the number of portions of each menu item provided. The nutrient-based standards ensure that each pupil has access to a balanced lunch, but as many secondary schools offer a range of menu options at lunchtime, the nutrient content of each lunch will depend on the food option selected.*

*While it is not possible to guarantee that every pupil will select a healthy balanced lunch, schools are encouraging pupils to select complete meals. Such nutrient-dense meals will help to ensure that, increasingly, consumption mirrors provision.*

## VW Comment

There is no dispute that some children do not consume a diet which nutritionally adequate. This is largely because of their home background and personal choice. If this issue is to be addressed then it is essential to focus on the children themselves and hopefully persuade/convince them of the desirability of eating healthily. It will also be necessary to tackle those factors which influence their choice of food.

It really is naive to think that this type of problem can be solved by controlling the food served in schools which in any event probably accounts for only about 20% of the total food consumed (i.e. This assumes the children actually decide to have school lunches).

Furthermore there can be no justification for the food served to all children to be determined by the needs of a few.

Clearly in practice, consumption does not currently mirror provision



**Before**



**After**

'Before' and 'After' photos taken from a report by Dr Gatenby on the Eat Well Do Well project in Hull, showing an example of school meals consumption patterns

[http://www.healthyeatinginschools.co.uk/pdfs/comparison\\_eat\\_well\\_do\\_well.pdf](http://www.healthyeatinginschools.co.uk/pdfs/comparison_eat_well_do_well.pdf)

## **References**

- (1) Department of Health (1991). Report on Health and Social Subjects 41. Dietary Reference Values for Food Energy and Nutrients for the United Kingdom. Committee on Medical Aspects of Food Policy. London. HMSO Para 1.3.11 p 5.
- (2) Department of Health (1991). Report on Health and Social Subjects 41. Dietary Reference Values for Food Energy and Nutrients for the United Kingdom. Committee on Medical Aspects of Food Policy. London. HMSO Para 1.3.8 p 4.
- (3) McCance & Widdowson's The composition of Food: Sixth Summary Edition (2002). Food Standards Agency. Cambridge: Royal Society of Chemistry.
- (4) European Commission Health & Consumer Protection Directorate-General (2003). Scientific Committee on Food. Opinion of the Scientific Committee on Food on the revision of reference values for nutrition labelling. SFC/NUT/GEN/18 Final.6 March 2003 p 14.