WHY WE SHOULD BE CONCERNED ABOUT MPLs

By Dr Robert Verkerk
Executive and Scientific Director
Alliance for Natural Health
www.anhcampaign.org

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Healing diets

Foods heal—about that there can be no doubt. The ancient Greek physician Hippocrates, widely regarded as one of the greatest physicians of all time, laid down, several hundred years before the birth of Christ, the most fundamental and long-lasting ethical code of conduct for the practice of medicine. Part of this code reads "I will apply dietetic measures for the benefit of the sick according to my ability and judgment; I will keep them from harm and injustice. I will neither give a deadly drug to anybody who asked for it, nor will I make a suggestion to this effect."

Hippocrates is also thought to have said, "Let thy food be they medicine and thy medicine be they food." To this day, we don't often doubt this. We recognise that the southern Mediterranean diet is a lot healthier than our own and there are scores of published epidemiological and observational studies published to prove it. If we choose to shift our dietary patterns in the direction of our Greek, Italian, Spanish and Portuguese cousins, we can expect a lesser likelihood of developing the most burdensome diseases of the modern age, namely cancer, heart disease, diabetes and obesity.

Quality of the diet

However things are a changing, but a lot of the longer-term data that tells us how people in different regions are faring with their chosen diets has yet to catch up. The diet and lifestyle of the 1960s through to around 1990 will have had a much greater bearing on a person developing heart disease or cancer at aged 50 today, than the same person's elected diet and lifestyle in the period since 2000. Compare the likely diet of a typical six year-old today and that of a six-year old in the 1960s. Things have changed, I think you'll agree.

One of the shifts that our government regulators—and not just the ones in the three countries of the UK—often remain tight-lipped about, is just how much the quality of our diets has changed over the last 50 or so years. Even if we look, gram for gram, at individual whole food items, we see considerable degradation in mineral concentration. Sussex-based chiropractor nutritionist, David Thomas, who in an earlier life was geologist wasn't content to accept the silence. He became anxious to discover if the vegetable, meat and dairy components of our diets had really changed. His data source was the various editions of McCance & Widdowson's

Composition of Foods, in which hundreds of different foods are analysed for their nutritional composition. This work, undertaken in collaboration with the Royal Society of Chemistry, resulted in the first edition being published in 1940, with subsequent editions, now available through the Food Standards Agency, being published in 1946, 1960, 1976, 1991 and 2002. David Thomas's comparison of the change in mineral levels over 50 years, based on McCance and Widdowson data, shows, typically, a 30-70% decline in key minerals over this period. Paul Bergner in the US has undertaken a similar comparison using US Depart of Agriculture data and—not surprisingly—has found similar trends. Additional to this he has also looked at vitamin contents and these too have generally declined in a similar way.

But it's not just the nutrients losses in whole food components of the diet that concerns many nutritional therapists. It's the total diet and the fact that a large sector of the population are consuming primarily processed, rather than whole foods, on top of this, they are cooking methods, ranging from microwaving to high-temperature frying, that a damaging to large numbers of nutrients. It is perhaps less surprising, then, to find that when the diets of 19 to 64-year-olds was assessed by the FSA in it's 2003 National Diet and Nutrition Survey, a few major concerns were revealed. The deficiencies are all the more worrying for those of us who have concerns that the existing reference points, namely the Reference Nutrient Intakes and the Recommended Daily Allowances are set too low. Magnesium. iron, zinc and selenium intakes are clearly substandard in large sectors of the population.

In dealing with this, our governments tell us we can get all we need from our diets and—be good boys and girls— and eat your 5 A DAY. They don't tell us there is no science to support the magic of 5. And they also don't tell us that their mantra which states that it doesn't matter in what form the fruit or vegetables are in (e.g., canned, dried, frozen, microwaved, concentrated) is processed cod's wallop.

Nanny looks after us

Our nanny state tries to protect us, whenever it gets a chance, from ourselves. The nannying approach is comprised of two main steps. The first assesses the nature of a given risk and is called risk assessment. The second uses policy to ensure our risk is reduced. This second step is referred to as risk management. Let's take the example of tobacco. After more than thirty years of unequivocal evidence, governments feel a need to reduce our risk of tobacco-related diseases because scientific evidence reveals that tobacco smoking is the single greatest preventable cause of cancer. It's not helpful for heart disease either. So they force manufacturers to put warning labels all over tobacco products and they reduce our exposure to second-hand smoke by forcing smokers onto pavements. What about alcohol? They tell us we need to drink less and they prevent young kids from buying our favoured poison. They also tax booze heavily in an attempt to disincentivise our purchases while really knowing that so many of us are hooked on the stuff and our continued interest in it will help swell their coffers in any event. The important point I make here is that government regulators use a graded approach to risk, in which educational

messages, government advice and warning labels are a part of the risk management process. It's not just a binary approach in which you either allow a product on the market if you deem it safe, or ban it if you don't.

Brussels bullies

With little or no evidence, the European Commission (EC), the unelected, Brussels-based government authority that now controls the vast majority of our products, services and—dare I say it—risks, has deemed to ban high dose vitamin and mineral products over the next couple of years. On top of that, they are planning to ban by the beginning of 2010 any vitamin and mineral form over which there is insufficient evidence to demonstrate safety (even if there is no evidence of lack of safety). The *pièce de resistance* is of course limiting our freedom of speech and telling us what we can and can't say in relation to health benefits. Under the EC's Nutrition and Health Claims Regulation which came into force mid-2007 and is yet to be felt fully as it beds in under its transition measures, it will be an offence to make any written or verbal statement about the health benefit of a product unless that science, and the associated statement, has been approved by another European institution, the Parma-based European Food Safety Authority. This will happen irrespective of whether there is scientific evidence to prove it. Worse, the threshold of science that will be required is likely to require randomised controlled trials (RCTs), the benchmark used by the pharmaceutical industry validate efficacy. But how do you control trials on foods and nutrients properly? Can you imagine how your control group would fare by denying them nutrients? The concept of the RCT makes a little more sense in the case of new-to-nature drugs where you give your control group a placebo. It's a little different in the case of nutrients, on which we depend for our survival. This is why two of the most well know relationships in nutrition, the health benefits conferred by eating lots of fruit and vegetables and the hypertensive risks associated with excess salt consumption, don't, between each other, have a single RCT to support them. They are based on observational or epidemiological evidence. Yet the EC and EFSA are increasingly telling us that this type of evidence is too weak and we need to rely on the pharma industry's gold standard, the RCT. It makes you wonder who's really driving all of this….

MPLs – an attempt to ban high dose supplements?

In June 2006, the European Commission released a Discussion Paper for its consultation on how it was thinking of setting maximum and minimum amounts of vitamins and minerals in foodstuffs.[1] Just over a year later it published, albeit with limited circulation, an Orientation Paper, which gave more detail over proposed approaches. In short, the planned approach to setting the all-important maximum permitted levels (MPLs) aims to take a scientifically-established Upper Level (UL) and

[1] European Commission discussion paper on setting of maximum and minimum amounts in foodstuffs, June 2006:
http://ec.europa.eu/food/food/labellingnutrition/supplements/discus_paper_amount_vitamins.pdf

then develop the MPL by deducting the maximum amount consumed in the diet from the UL.

Since the ULs, as established by entities like the UK Expert Group on Vitamins and Minerals and EFSA (and its predecessor the Scientific Committee on Food) are already, in many cases, too low, it's easy to end up with nonsensical results. The UL determinations are based around the most precautionary evidence, even if the evidence is weak, or, in some cases, has been shown to be invalid. They also don't take into account any differences between nutrient forms. This means that although we know iron bisglycinate doesn't cause gastrointestinal upset in the way iron sulphate does, it's plain tough if you want to use iron bisglycinate, you'll just have to wear the level determined for the most unfriendly nutrient form, in the case of iron, iron sulphate. Another example is vitamin D, which is increasingly shown to be deficient in large numbers of people, particularly when you take into account recent scientific evidence which suggests that required levels are at least 10 times greater than those to which the regulators are still working.

The many problems associated with proposed approaches to MPL determination have been documented in a detailed position paper by the Alliance for Natural Health (ANH), which is available from the ANH's website, www.anhcampaign.org. The position paper shows that proposed models are deeply faulty as evidenced by the fact that the anticipated risk management models tell us we would have to accept n MPL for beta-carotene, even if we get it from natural sources like our cousins in the Mediterranean, that it typically found in around one and a half carrots. The proposed MPL for selenium looks to be less than that which you'd find in just two brazil nuts! If the regulators believed the results of their calculations, wouldn't they be running around telling food manufacturers to put warnings all over every bag of carrots and brazil nuts? But, like us, they know that a good plate of carrots and a nice handful of brazil nuts is farm from risky. In fact they know it's darn right healthy! So surely they either have to admit there is a difference between the different forms of vitamins and minerals, or they have to admit something is wrong with their model?

In the ANH position paper, we have recommended the EC does the proper thing. To avoid the pressures from different industry sectors and the inevitable shonky science, the whole process of determining MPLs should be delayed and handed over to an independent academic institution. Furthermore, let's not have only a binary system which either bans or allows. Let's have graded risk management measures in which warning labels offer consumers both information and an opportunity for choice.

Failing this, the Commission could, with no justification, be charged with stopping many of us ingesting the nutrients our bodies' are increasingly craving. It's up to each and every one of us to make sure our points of view are known to the European Commission and let's see if common sense will prevail. This might help to avoid another legal challenge. It's the future generations we really need to be thinking

about as the food of today will influence their chronic disease patterns in the decades ahead.