

REGULATIONS RELATING TO THE LABELLING AND ADVERTISING OF FOODS: AMENDMENT UNDER THE FOODSTUFFS, COSMETICS AND DISINFECTANTS ACT, 1972 (ACT 54 OF 1972) PUBLISHED BY THE DEPARTMENT OF HEALTH¹

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Preamble

I refer to the comments² submitted in December 2007 on the draft regulations on the same subject published in the Government Notice No R642 of 20 July 2007. Some of the contents has been copied, abstracted, and extracted into this document.

The rapidly expanding serious global and local non-communicable disease (NCD) pandemic coexisting in South Africa with childhood under-nutrition necessitates a paradigm shift in food labelling regulation from one that is indulgent to the food industry and mostly – possibly calculatingly – confusing to the public to a deliberate and directed promotion of a nutritious, appropriate, safe, and affordable diet for all ages within an evolving, scientific, and unbiased knowledge base. The simultaneous, parallel, and interdependent growth and development of the sectors related to the food industry should be profitably and responsibly accommodated within the new paradigm.

Nutrition and health claims on food labels serve as advertising instruments and should no longer be allowed. Instead messages sanctioned by the Department of Health (DOH) on healthy food and warnings against unhealthy eating practices should be mandatory. From this perspective the legislation would be more than a regulatory

¹ [Draft Amendment R429 Foodstuffs...](#)

² http://www.fffieschultz.com/files/pdf/SA_food_labels_2007.pdf

mechanism. It would be an important contributor of accurate and accessible informal education and a motivational instrument for the production, processing, distribution, and consumption of healthy food.

The DOH should obtain a commitment from the state departments which deal with trade, industry, commerce, agriculture, transport, recreation, and education at all levels of government and from the private sector for the creation of a physical, social, commercial, and media environment in which healthy food choices can be made.

It is unrealistic to assume that good intentions and good programmes will result in the desired outcomes. It was not so with the HIV/AIDS public education programmes in SA and interestingly also not so in the UK when TV programmes with food adverts were moved out of children's peak watching times.³ The influence of the food industry in promoting eating practices that enhance financial gain but undermine health has to be curtailed and a relationship between the food industry and the health sector established that at least does not make people sick. In obesity and the other NCDs we face a catastrophe worse than the AIDS epidemic; some argue that the catastrophe is already here.

In this submission I consider the following issues:

1. review and advisory body
2. claims and endorsements
3. voluntary display items
4. mandatory display items
5. health and nutrition messages
6. definitions
7. data tables on ingredients, nutrients and food additives
8. appearance and format of displays and declarations
9. language
10. enforcement
11. quantitative measurement methodology
12. food production and preparation methods
13. exemptions
14. Guidelines

³ Childhood Obesity. Food Advertising in Context. Children's food choices, parents' understanding and influence, and the role of food promotions. July 2004. Ofcom (Office of Communications, regulator for the UK communications industries) www.ofcom.org.uk

1. review and advisory body

The quotation below from the executive summary of a report⁴ by the Joint Health Claims Initiative, a non-governmental organisation in the UK, is an example of what informs my thinking on a food labelling review and advisory body. The sentiments expressed in the summary are applicable to food labels as a whole and not only to claims.

In recognition of the growing need to protect and promote public health, the European Commission has recently adopted a draft proposal for a regulation on nutrition and health claims, which will require that all health claims for food be approved before they are released on the market. This includes the adoption of a list of health claims based on well-established science

In the absence of specific controls on health claims, the Food Standards Agency supports the work of the UK Joint Health Claims Initiative (JHCI), a democratic group that represents the concerned interests of the consumer movement, the food industry and food law enforcement officers. A Code of Practice for Health Claims for Food has been developed by the JHCI and an Expert Committee of independent, respected scientists has been created to assess the scientific validity of claims.

A permanent statutory commission with mandated public participation, provisionally called a review and advisory body, should be established within the Act to guide the DOH in all regulatory matters relating to food labelling and declarations. Its brief should be wide and should include:

1. analytic and laboratory methodology
2. reference values and standards
3. format and content of labels and declarations
4. messages on labels and declarations
5. monitoring and evaluation of the uptake of the Regulations and its impact on public knowledge and behaviour, pattern of morbidity and mortality, and on the food industry and related sectors

⁴ Joint Health Claims Initiative Report to the Food Standards Agency: UK. JHCI/76/03. 2003

2. *Claims and endorsements*

There should be a blanket ban on all claims and endorsements and all references to claims should be deleted from the Regulations. Food is food and not medicine that is prescribed to promote health and prevent, cure, and control disease. The objectives of a total ban are to emphasise that all food and not only food with a health or benefit claim is intrinsically healthy, to make food labels intelligible and accessible by simplifying the messages directed at the shopper and consumer, and to avert negative fall-out from unsubstantiated and unregulated claims and spurious endorsements. There is no need for any special pleading on behalf of any food or ingredient except to create and protect market advantage. The following statement on functional foods⁵ is relevant and can justifiably apply to all food claims.

There are two broad positions on functional foods. Proponents argue that they are a consumer friendly way to improve diets and fulfil the aim of nutrition as a source of preventing ill health. They see them in the forefront of “personalised medicine” and health through consumer choice. Sceptics argue that the market for functional foods is corporate and driven by the need to diversify and create niche sectors in saturated food markets. They also argue that functional foods are affordable and appealing only to the “worried well,” or worse, could be an extra burden on poor people’s finances.

Food is essential for life. A varied diet, consumed in adequate but not excessive amounts, can provide sufficient and physiologically-balanced energy and nutrients to maintain weight and bodily functions, protect and promote health, prevent many diseases, facilitate cure, control disease, and assist convalescence. And enjoyed!

The addition of minerals, vitamins, anti-oxidants, protein, amino acids, prebiotics, inulin, and other so-called nutritional supplements frequently used to justify and support health and nutrition claims are not necessary. Some of them are not only not beneficial to health but may actually

⁵ Functional foods: their long-term impact and marketing need to be monitored. Editorial; Tim Lang, professor of food policy. Centre for Food Policy, City University, London. BMJ 2007;334:1015-6

cause illness especially in large amounts,⁶ and increase the risk of non-communicable diseases.⁷

All messages and endorsements on labels, declarations, and displays claiming any health or other benefit, whether implied or explicit, and irrespective of the status of the endorsing agency or organisation should therefore be prohibited. Such a blanket ban will also ensure that new evidence published with increasing regularity on the beneficial and detrimental effects on health of macronutrients, micronutrients, and food additives does not necessitate amendments to the Regulations. Claims that are not as up-to-date as the latest twitter feeds, other social media communications, and print and electronic news reports may be contradictory, cause confusion, and undermine public trust.

People are better served with accurate and accessible data on ingredients, nutrients, and food additives in user-friendly tables together with intelligible, culturally-sensitive, and practical health and nutrition messages than with market-driven claims even if they are not confusing.

3. voluntary display items

Notwithstanding the above constraints, it should nevertheless be permissible to display and declare on food labels and in any other public and media outlet voluntary messages that promote eco-friendly eating practices such as locally sourced and not genetically modified as well as negative claims such as no sugar or salt added. Messages that indicate suitability for social groups with culturally-defined dietary practices such as vegans and religious denominations should also be permitted. In all instances the review and advisory body's recommendations on content and format should be followed and formal DOH approval obtained.

4. mandatory display items

Relevant and appropriate messages on healthy and unhealthy food as well as warnings and cautions of potential hazards as drafted and provided by the review and advisory body must be noted in the prescribed tables. In addition the following should be mandatory:

⁶ <http://www.ewg.org/research/how-much-is-too-much>

⁷ http://www.effieschultz.com/files/pdf/2013_dietary-fibre-discussion.pdf. page 36

name of product, brand name with or without a logo if applicable, the 3 prescribed tables, volume/mass, place of origin – with sufficient data to assess proximity of source of production and manufacture to point of sale – contact details of producer, manufacturer, and distributor as applicable, batch identification, date markings, including date of manufacture, and as the review and advisory body may determine.

5. health and nutrition messages

Health and nutrition messages approved by the DOH would/could together with the information tables help consumers choose health-promoting food and avoid items that are associated with the development of diseases such as NCDs inter alia. The messages should be culturally-sensitive or neutral and not Eurocentric. Some could be targeted at groups such as children, pregnant women, the elderly, and people at risk of developing or suffering from selected common diseases. They should be legally unchallengeable and focus-group tested and their impact should be monitored. (See appendix A for examples.)

6. Definitions

6.1 general considerations

1. Because claims and endorsements will not be allowed, all references to them in the definitions should be deleted.
2. The definitions should be accurate, unambiguous, internally consistent, complete, and generally intelligible to the lay public.
3. The definitions should be listed alphabetically under nouns as key-words followed where indicated by a qualifying adjective or phrase.
4. Secondary or derived definitions that incorporate primary definitions should use the word as defined in the primary definition.
5. The definitions in the draft Regulations often differ from those in the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972) and in earlier Regulations within the Act. Consideration should be given to using the earlier definitions to promote consistency.
6. Referral to definitions in other legislative instruments and the Guidelines should be quoted in full in the text or in an appendix and be correctly referenced and pre-checked for availability.
7. All words and terms that appear in the text should be defined; all words and terms that do not appear in the text should be removed.
8. Individual constituents within a nutrient or other group do not need to be individually defined unless they exhibit unique properties to which

attention is directed. Examples of the former include antioxidants and of the latter minerals such as sodium.

9. Common words in standard usage do not need to be defined.
10. Names in the nutrients and food additives tables should be defined.
11. Regulations on infant formulae, enteral food, and food for medical management should be moved to other legislative instruments.

6.2 *working definition of healthy food*

There should be a working definition of healthy and unhealthy food. They are predicated on the premise that all food is healthy unless otherwise established and are dependent on the definitions of food, nutrients, and food additives. When food was not as now extensively modified, refined, purified, filtered, deodorised, bleached, subjected to extraction and break-up with or without reconstitution, restitution, reformulation, fortification, and/or manipulated in other ways, people ate food not artificial man-made concoctions. Depending on the extent of manipulation modified and extracted items are no longer food but food additives. Defining a healthy food is now difficult. My attempts at acceptable definitions are listed alphabetically below:

FOOD means any substance of plant or animal origin composed of nutrients and excluding food additives.

FOOD – ADDITIVE means any substance that is extracted or modified from food by chemical or physical means, or synthesised de novo, or any mixture of the foregoing that is added to food to add, create, preserve, or enhance flavour, taste, texture, appearance, so-called nutritional value, or for any technological and other purpose whatsoever.⁸

FOOD – HEALTHY means food that does not contain substances that are known to be detrimental in any manner or concentration at or above defined minimal safe levels, excluding idiosyncratic allergic susceptibility, to any person irrespective of age and physiological status.

FOOD – UNHEALTHY means food that contains substances directly or indirectly derived that are known to be detrimental in any manner or concentration at or above defined minimal safe levels, excluding idiosyncratic allergic susceptibility, to any person irrespective of age and physiological status.

NUTRIENT means a substance that provides the nourishment and energy essential for the maintenance of life, function, growth, and replacement.

⁸ http://www.effieschultz.com/files/pdf/2014_diet-and-CVD-slides.pdf. slide 14

For the definitions to be usable, harmful substances and potential allergens should be defined and listed in an appendix. The lists should be reviewed regularly by the review and advisory body in accordance with established and published reference values and standards. Food with allergenic potential should carry mandatory warning/caution notices.

6.3 *review of some of the definitions in the draft Regulations*

a. additions relevant to NCDs:

Sugars, a subgroup within the carbohydrate macronutrient cluster, are causally related to obesity, the metabolic syndrome together with their complications and associated conditions, several cancers, other NCDs, as well as under-nutrition and other forms of malnutrition. Starch and non-starch polysaccharides (NSPs) are the other distinct subgroups within the carbohydrate cluster. Slowly-digested and resistant starch and NSP are major components of fibre which promotes local gastro-intestinal, microbiome, and systemic health and prevents some of the diseases associated with sugars.⁹ Each of these subgroups consist of smaller units some of which exhibit distinct health-related properties. These subgroups and units may not be unique and some are linked chemically with compounds from other macronutrient and micronutrient groups.

Cholesterol is not a fat but a sterol and like fat/oil and fatty acids it is a lipid.¹⁰ Fat is a chemically bonded mixture of glycerol and three fatty acids. Fatty acids are divided into cis and trans forms and into saturated, mono-unsaturated, and poly-unsaturated forms. Most trans fatty acids are not natural but industrial or man-made. Inter-esterified fatty acids are another type of man-made fatty acid. The characteristics and effects at fats and oils vary according to the number, type, and distribution of their constituent fatty acids.

In the context of the Regulations proteins, vitamins, minerals, and anti-oxidants do not at present need to be subdivided although individual members of these clusters such as sodium should be identified.

⁹ http://www.effieschultz.com/files/pdf/2013_dietary-fibre-discussion.pdf, pages 12 and 13

¹⁰ Although the words "oils", "fats", and "lipids" are all used to refer to fats, in reality, fat is a subset of lipid. "Oils" is usually used to refer to fats that are liquids at normal room temperature, while "fats" is usually used to refer to fats that are solids at normal room temperature. "Lipids" is used to refer to both liquid and solid fats, along with ... related substances... [like cholesterol] which are not soluble in water. copied verbatim from <http://en.wikipedia.org/wiki/Fat>. Last updated 1 July 2014. Accessed 27 August 2014

It is therefore necessary to accurately and clearly define in intelligible and non-technical terms those smaller dietary constituents that are known or suspected to be implicated in the chain of causality and in the prevention of common diseases and conditions. It is also necessary to discontinue the use of words and terms that are no longer relevant or meaningful such as total carbohydrate, total glycaemic carbohydrate, and total sugar, glycaemic index¹¹ and glycaemic load. Below are some examples of additions or replacements. They are listed alphabetically.

CARBOHYDRATE means a compound consisting of ≥ 1 saccharide units which is subdivided into sugars, oligosaccharides, starch, and non-starch polysaccharides according to the number and linkages of the saccharides.

CHOLESTEROL means a sterol which is a type of lipids.

FAT means a compound chemically composed of glycerol and a number of fatty acids that is soluble in organic solvents and insoluble in water.

FAT – TRANS means a fat containing trans fatty acids

FATTY ACID means a carboxylic acid with a 4 - 28 C atom tail or chain.

FATTY ACID – SATURATED (SFA) means a fatty acid in which every C atom in the chain is attached to 2 H atoms except the C atom at the methyl end of the chain which bears 3 H atoms.

FATTY ACID – UNSATURATED means a fatty acid in which not every C atom in the chain is attached to 2 H atoms so that there are ≥ 1 C to C double bond/s (C=C) or unsaturated C atom/s in the chain.

FATTY ACID – MONOUNSATURATED (MUFA) means an unsaturated fatty acid with 1 unsaturated C atom in the chain

FATTY ACID – POLYUNSATURATED (PUFA) means an unsaturated fatty acid with >1 unsaturated C atoms in the chain.

FATTY ACID – OMEGA 3 means a polyunsaturated fatty acid with an unsaturated C atom at the 3rd C atom from the methyl end of the chain.

FATTY ACID – OMEGA 6 means a polyunsaturated fatty acid with an unsaturated C atom at the 6th C atom from the methyl end of the chain.

FATTY ACID – HYDROGENATED means a fatty acid in which 2 H atoms have been added to an unsaturated C atom in the presence of a chemical catalyst or at a very high temperature.

FATTY ACID – PARTIALLY HYDROGENATED means a hydrogenated fatty acid in which not all the unsaturated C atoms are hydrogenated. Trans fatty acids are usually produced during partial hydrogenation so a fat composed of partially hydrogenated fatty acids contains trans fatty acids.

¹¹ http://www.effieschultz.com/files/pdf/2014_diet-and-CVD-slides.pdf. slides 116-119

FATTY ACID – TRANS (TFA) means a fatty acid in which the H atoms attached to the C atom/s are aligned in the trans plane and not in the cis plane as in the case in most naturally-occurring fatty acids.

FATTY ACID – NATURAL TRANS means naturally-occurring TFAs.

FATTY ACID – INDUSTRIAL TRANS means industrially-produced TFAs

FIBRE means naturally occurring carbohydrate compounds and glycoconjugates¹² that are not digested in the upper intestine because of their physical properties or their chemical and isomeric structure¹³. (See discussion¹⁴ on my definition of fibre and why the definition in the draft Regulations is wrong and should not be used.)

HIGH FRUCTOSE CORN SYRUP (HFCS) means a unbound mixture of 42, 55, or 65% fructose and glucose derived from hydrolysed corn starch.

LIPID means a group of natural compounds that includes fats, fatty acids, and sterols like cholesterol.

NON-STARCH POLYSACCHARIDE (NSP) means a polysaccharide that consist of saccharides which may not be D isomers or bound to each other by α 1:4 links. It is not digested in the upper intestine.

OLIGOSACCHARIDE means a carbohydrate of 3-10 saccharides units. Oligosaccharides found in food are not digested in the upper intestine.

POLYSACCHARIDE means a carbohydrate of >10 saccharides.

PREBIOTICS means any soluble fibre which enhances the growth and health of beneficial lower intestinal microflora.

SACCHARIDE means a compound containing C, H, and O atoms most commonly linked chemically in a $C_6H_{10}O_5$ formulation.

STARCH means a polysaccharide consisting of 20-30% amylose, a long coiled chain of α 1:4 linked glucose molecules, and 70-80% amylopectin, a compound of α 1:4 linked glucose chains with α 1:6 linked branches.

STARCH – RESISTANT (RS) means starch that was not digested in the upper intestine having passed undigested into the large intestine.¹⁵

STARCH – SLOWLY DIGESTED means starch that is slowly digested in the upper intestine with its passage through it delayed.

SUCROSE means a carbohydrate consisting of equal amounts of glucose and fructose chemically bound to each other.

SUGAR means a carbohydrate consisting of 1 or 2 saccharide units.

SUGAR – ADDED means a sugar that has been added to a food.

SUGAR – INTRINSIC means a sugar that is an inherent and integral component of an unprocessed food.

¹² Glycoconjugates = carbohydrate compounds chemically bound to other compounds

¹³ Unique chemical and isomeric structure = not α 1:4 bound and dextrose rotating resp.

¹⁴ http://www.effieschultz.com/files/pdf/2013_dietary-fibre-discussion.pdf, pages 6-8 and 32-36

¹⁵ http://www.effieschultz.com/files/pdf/2013_dietary-fibre-discussion.pdf, and 14-17

SUGAR – TABLE means sucrose.

SUGAR ALCOHOL is a hydrogenated derivative of a sugar that breaks down in the small intestine into fructose and an indigestible remnant.

b. other additions:

AMINO ACID means a compound composed of amine (NH₂) and carboxylic acid (COOH) groups with a side-chain of C, H, O, and N atoms which are specific to different amino acids.

FOOD – NATURAL means a food found only in nature excluding food additives extracted, modified, or derived in any way whatsoever from food found in nature or a residue thereof if less than a level determined by the review and advisory body.

LACTOSE means a disaccharide composed of galactose and glucose.

PSEUDO-CEREAL means a broadleaf plant that bears edible grains.

ROOT VEGETABLE means any edible underground part of a plant.

c. comments on other definitions – with or without replacement:

EXTRACTION – COLD OR COLD PRESSED. A temperature of 27°C as generally used as a cut-off point in mechanical extraction is not low enough to qualify as “cold”. Methods currently used in the oil industry to extract oil from oil seeds or fruits should be defined and methods seldom used such as mechanically pressing should be deleted. Terms like extra virgin cold-pressed are no longer accurate or even meaningful.

FLOUR – WHOLE GRAIN. Whole grains are already defined. Flour is a name in common use and can be made from all cereal and pseudo-cereal grains, whether whole or not.

GRAIN – WHOLE. The definition in the Regulations should be abbreviated and the last section including the reference to glycaemic index should be deleted so that the definition will read:

GRAIN – WHOLE means an intact grain the inherent components of which have not been physically disrupted in any manner except by de-husking where applicable.

GRAIN – PARTIAL WHOLE. When intact grains are added to a food they are part of the food and should be recorded as such in the ingredients table. If they are only partially whole, they are neither here nor there.

HEALTH PROMOTION – GENERIC. It is not necessary to detail the parameters of health promotion or to particularise NCDs. The role of food in health and disease is a given.

MALNUTRITION – MODERATE ACUTE and MALNUTRITION – NOT ACUTE. The old terms are meaningful, self-evident, user-friendly, and well-known and do not need to be defined. Numbers and scores in the context of food labels add unnecessary complexity and are not user-friendly.

NRV. This should not be mentioned here but in the Guidelines and should/could be used for determining qualitative attributes in the nutrients data tables. In either place their purpose should not be stated in a definition. Since they only apply to persons older than 3 years there should be a set of values or a formula for children under 3 years of age.

PROCESSING AID. It is one of many food additives. Besides a processing aid should not be intentionally “consumed as a food ingredient by itself”.

PROTEIN. The first part (i) of the definition slightly qualified and without the reference to the carbonyl and amino groups could suffice on its own. It would help if there was a primary definition of an amino acid. References to measurement methods do not belong in a definition and should be removed. The definition could then read as follows:

PROTEIN means a large organic compound consisting of one or more long chains of amino acid residues joined together by peptide bonds.

SERVING. Recommended serving sizes depend on the age, gender, physiological status, and level of activity, etc of the consumer as well as on other components and correlates of the meal of which the serving would be a part. It is better to record the nutritional information of the whole container in the case of ordinary average-sized containers and of a cup or other standard household utensil in the case of large containers.

SIGNIFICANT CEREAL. Why significant and what is insignificant about those that are not listed? Besides examples are not part of a definition.

SINGLE INGREDIENT AGRICULTURAL COMMODITIES. There are anomalies in the list and anyway such a list should be in the Guidelines or another document where it can be altered or added to without an amendment. Besides many items can be grouped for comprehensive coverage without repetition and open-ended to accommodate additions.

TREE NUTS are nuts; no need to qualify with the word tree. Ground or peanuts are defined elsewhere if a distinction needs to be made – not necessary surely from a nutrition perspective.

WEIGHT LOSS. Term is in common use – so no need to define and no need to describe any reason or method for losing weight in a definition.

WEIGHT LOSS SUBSTANCE OR INGREDIENT. This is either a claim or a definition of something very controversial. It should be deleted.

WHOLE WHEAT. This is not the same as whole grain but an example of sloppy language. It should be deleted.

d. other suggested replacements:

ANTIOXIDANT means a compound that inhibits the oxidation of compounds in food and food additives and excludes vitamins, minerals, and other substances with antioxidant properties.

CEREAL means a grass of the family Poaceae bearing edible seeds.

GRAIN means the edible seed or kernel of a cereal and pseudo-cereal.

GRAIN – RECONSTITUTED WHOLE means the product obtained by physically disrupting and separating the components of a grain and recombining the components to approximate that of the intact grain.

VEGAN DIET means a diet which excludes all ingredients and additives derived from an animal source.

VEGETARIAN DIET means a diet of plant, fungal, algal, and bacterial origin and products from live animals including unfertilised eggs but excludes animal flesh and products obtained from slaughtered animals.

e. descriptive terms that act, or can be construed, as advertisements or claims should be removed. Examples include enriched, evidence-based, genuine, pure, original, and traditional.

7. *information on ingredients, nutrients, and additives*

It is recommended that the ingredients list and nutritional information table recommended in the draft document be replaced with 3 tables of data, one each on ingredients, nutrients from natural food, and constituents of food additives. Extracts which are food additives are difficult to categorise. For example, white bread made from 70% extracted wheat flour should be classified as a natural food,¹⁶ while refined plant oils may be considered to be food additives.¹⁷

As the data in the tables should be the only source of information on the contents and nature of the edible commodities offered for sale, they should be sufficient, intelligible, and accessible so that shoppers and consumers are able to make informed choices customised to their health, social, and personal preferences and needs. The tables should be the tools which together with health and nutrition messages would promote knowledge and understanding and empower people.

¹⁶ http://www.effieschultz.com/files/pdf/2014_diet-and-CVD-slides.pdf. slide 86

¹⁷ Vitamins E and K, oleuropein, squalene, phytosterol, and ≥ 30 phenolic compounds are usually removed when plant oils are refined. http://en.wikipedia.org/wiki/Olive_oil. Last updated 16 August 2014. Accessed 28 August 2014.

The tables should be displayed on all pre-packed containers of food. To accommodate items such as bulk stock, very small packets, single ingredient agricultural commodities, fresh, unprocessed items that are not pre-packed, and the other items referred to in section 64 of the draft Regulations, the mandated tables and declarations should be displayed in posters or boards close to the food in clear view of the shopper. Data on food in print, electronic, social media, and other forms of public communications should be similarly displayed.

The tables should be simple and not cluttered with NIL entries on ingredients, nutrients, and food additives that are not present. The data should be tabulated in a standard, user-friendly format. Focus group discussions should be conducted to maximise data intelligibility. There should be NO exemptions; everything including water should be noted. A note on how to read and interpret the tables should be prominently displayed. The text should also indicate that if an item does not appear in a tables it is not present. The possible presence of contaminating allergens should, however, be declared. Similarly if a product contains no nutrients or additives, the empty table should not be displayed and the reason for the absence of the table should be recorded.

The ingredients table should have 5 columns with column headings denoting name, quantity, quality, qualifier or description, and source. The other two tables should also have 5 columns with the following headings: name, energy, quantity, quality, and qualifier or description. The quantity column should be subdivided where appropriate to show volume or mass, and % of total calories.

Ingredients should be listed in the tables in descending order of magnitude; the names in the other tables should be listed according to the conventions in general use. In order, however, to accommodate the many ingredients, nutrients, and additives especially in marketed industrial concoctions only data on grouped items or a class of products should be tabulated with the details in small print in referenced footnotes, except for special items like sodium or selected items as determined from time to time by the review and advisory body. For example: in the ingredients table mixed grains could be listed as an ingredient and the types of grains in the mixture could be shown in the footnotes. Alternatively the types of grain could be listed individually as a subset of mixed grains. The same could apply in the other tables for

nutritionally significant or large item groups such as sugars, fats, and minerals.

The following item names are suggested for the nutrients table: total, sugars, starch, fibre, lipids, protein, minerals, vitamins, and antioxidants. The names that should be used for the food additives table should/could be: total, sugars, non-nutritive sweeteners, fibre, minerals, vitamins, anti-oxidants, other nutrients, other non-nutritive substances.

Note that carbohydrates have deliberately been divided into sugars, starch, and fibre in keeping with current understanding of their distinctively different properties and effects on human physiology and health. Lipids are by contrast not subdivided because the current knowledge base is in flux. Cholesterol and saturated fats are probably not unhealthy, trans fatty acids as such may also not be unhealthy except possibly on account of the way in which they have been produced, omega-6 unsaturated fatty acids may not be healthy, the permissible maximum contribution of lipids to daily calorie intake of 30% may be too high, and modern methods of refining plant oils may account for the questionable association of high fat consumption and certain NCDs.

Energy should be recorded in calories (cal) only and not in Calories (Cal) or kilocalories (kcal) or in kilojoules (kJ). Calories is understood by most people and is generally recognised and used everywhere in the context of nutrition; kcal is confusing and kilojoules not in common usage. Calorie is conventionally written with a small "c" not with a capital "C" although they confusingly refer to the same thing.

Quantitative values should be recorded per container and not per serving. An average serving size is not a standard measure and in practice should vary with age, gender, and habitus inter alia while an arbitrary denominator such as 100g or ml is neither meaningful or useful. If quantity is not measurable as in the case of fibre,¹⁸ where the amount is very small, or the value is insecure, this should be declared. Under certain conditions as determined by the review and advisory body an approximation might be used with acknowledgment but this practice is not advisable. In the case of vitamins, minerals, antioxidants, and additives when more than one is present, the number present should be recorded in the quantity column with the individual items in a referenced

¹⁸ http://www.effieschultz.com/files/pdf/2013_dietary-fibre-discussion.pdf. pages 28-30

footnote if appropriate. There could also be subsets for individual items as the review and advisory body may direct. Where a pre-prepared item is part of a composite product, its ingredients should be recorded separately in the ingredients table but in the other tables the total values of the nutrients and additives in the whole product should be recorded.

Qualitative attributes ranging from very high to very low based on NRVs and/or other evidence as determined by the review and advisory body but NOT genuine, real, pure, natural, and similar emotive and ambiguous terms should be entered in the qualitative attribute column.

Qualifying or descriptive words, terms, and phrases denoting warnings and cautions, indicating production methods such as kosher, halaal, organic, fermented, solvent or heat extracted, refined, filtered, deodorised, bleached, and reconstituted plus the extent thereof should be entered in the qualifying/description column of the table on nutrients. In the food additives table words and terms referring to function such as flavourant, colourant, preservative, stabiliser, and thickener but excluding anything that can be interpreted as a claim like "suitable for diabetics" should be entered. The wording in this column should be as permitted or mandated by the review and advisory body.

See appendix B for examples of recommended tables.

8. appearance and format of displays and declarations

Food labels should be informative instruments not advertisements. They should therefore communicate accurate and meaningful information that can promote healthy eating practices. They should be uncluttered and contain only information mandated in the Regulations and by the review and advisory body. Text, tables, brand names, and logos should be in a standard, regulated format and should be located on labels in fixed, pre-determined positions. Pictorial representations should not be allowed.

Traffic light signage to denote warnings and cautions as used in some countries should be used in text format and/or as bullets in the qualifier columns of the tables, at the bottom of the tables where applicable, and elsewhere as the review and advisory body may determine, with red indicating warning and amber caution. The green light should not be used as it may detract from the message that all food is healthy and because a green light could be construed as a claim or as advertising.

9. language

South Africa has 11 official languages. The draft states that only English shall be used. It is, however, recommended that consideration be given to the obligatory use of one other area-based language at least in health and nutrition messages and in warnings and cautions. Non-technical popular words and terms understandable by a typical, average, not highly educated member of the lay public should be used.

10. enforcement

In an attempt to ensure compliance with the Regulations and to reduce contraventions there should be a dedicated section in the Regulations that addresses inspection, enforcement, offences, and penalties. At present there are only two references in the draft Regulations to inspectors and one to offences; they deal only with the production of documents. There are no references to enforcement or penalties.

11. quantitative measurement methodology

The validity and reliability of quantitative data should be guaranteed with regulations on the scheduling and accreditation of standard methods of measurements as well as on the laboratories where measurements are made. Sanctions for transgression should be prescribed.

12. food production and preparation methods

Methods of food production, including fertiliser and fodder usage, and of food manufacturing and preparation that are known, presumed, or suspected to be deleterious to health such as genetic modification, irradiation, and the use of antibiotics, growth hormones, glyphosates, organic solvents, endocrine disruptors, and other compounds as the review and advisory body may determine should be proscribed or cautioned against as the case may be by mandated entries in the qualifier columns of the tables and elsewhere as determined by the review and advisory body. Lists of hazardous methods of food production and preparation should be regularly up-dated and made public.

13. exemptions

Contrary to what is provided for in the draft Regulations there should be NO exemptions from any of the requirements. Exemptions can create legal ambiguity and exploitable loopholes. In addition when advances in knowledge necessitate changes in a list of exemptions the changes could be cumbersome to administer, difficult to implement timeously, and often costly. And, what if the knowledge and consequent label changes are too late to pre-empt public harm and complicated recall procedures.

14. the Guidelines

The recommended review and advisory body should be responsible for drafting and regularly revising the DOH Guidelines applicable to the Regulations. This will locate them within a regulatory framework and ensure that they remain up-to-date. Comments on some of the guidelines in the current document¹⁹ are listed below.

guideline 1 Typical nutrition information and dietary suitability

- See comments on definitions above.
- Several items are based on currently insecure evidence.

guideline 2 The major dietary carbohydrates

- See definitions, discussion, and references above.
- The table on page 18 is out of date and wrong.
- Glycaemic carbohydrates as a concept should not be used at all.
- The definition of dietary fibre is wrong; so the recommendations on measurement methodology fall away. Besides fibre as a dynamic nutrient cannot be measured – now or ever. Only qualitative statements such as high and low can be valid and reliable.

guideline 3

This and all subsequent guidelines and references relating to endorsements, claims, and advertisements fall away as these will/should all be prohibited.

¹⁹ Draft Guidelines Applicable to the Draft Regulations relating to the Labelling and Advertising of Foods (R429 of 29 May 2014).

guideline 9 Sampling procedure for the purposes of generating ...

- Methods for sampling, measuring, and analysing food constituents should in all instances be regulated by references to reputable laboratories and by international standards. They need not be detailed in the guidelines. The same applies to epidemiological and other investigative methodologies.
- Infant formulae should be handled like medical diets. Both should be regulated in other legislative instruments.

guideline 10 Food-based dietary guidelines related matters

Food-based dietary guidelines should be regularly reviewed and up-dated by the review and advisory body and incorporated into health and nutrition messages. They do not belong in these Guidelines and insofar as they relate to claims they should be deleted.

guideline 14

Food that should not be marketed to children should also not be marketed to adults. This whole section, however, falls within the ambit of claims and therefore falls away.

guideline 15

Weight management belongs in health and nutrition messages as determined by the review and advisory body and not in the Guidelines.



Appendix A

Examples of health and nutrition messages

1. As Michael Pollan advised: Don't eat anything that your grandmother or great grandmother would not recognise as food.
2. Heed Michael Pollan's seven wise words:
Eat food. Not too much. Mostly plants.
3. Eat 5 or more small meals and snacks a day – breakfast, mid-morning snack, lunch, mid-afternoon snack, supper, bed-time snack.
4. Dish out a little at a time, use a small bowl, and eat slowly. Savour each mouthful. Make each meal and snack an occasion to enjoy.
5. All snacks and meals should be made of food not of food additives.
6. Eat food not sugary, salty, fatty stuff laced with other additives.
7. Avoid "fast" foods. Eat "slow" food and taste the difference.
8. Don't eat on the hoof. Sit down with family and friends in a congenial quiet friendly place, eat slowly, and enjoy your food.
9. Food additives are not food. They seduce your palate and corrupt your taste-buds. In small amounts they may enhance flavour, but too much may make you sick.
10. Sugars provide only energy, instant energy, which is then just as instantly gone – into storage depots and not available.
11. Sugary sweet substances added to food, such as treacle, molasses, honey, malt syrup, maple syrup, corn syrup, golden syrup, pancake syrup, and fruit juice concentrate have little or no nutritious value. They just provide calories and make you fat.
12. Eat when you are hungry. Stop when you feel full.

Appendix B

An example of recommended tables – entries are estimates

Wheat bran; mass: 500g

Table on ingredients

name	quantity	quality	qualifier	source
wheat bran	500g	milled	may contain gluten	local

Table on nutrients

name	calories	quantity	quality
all	1460	500g	
sugars	170	42.5g	
starch	320	80g	
fibre	N/A ¹	N/A ¹	high
lipids	180	20g	
protein	300	76g	
minerals		5 ²	
sodium		150mg	
vitamins		4 ³	
anti-oxidants		several	

1 N/A means that it is not possible to measure the amount of fibre present

2 The 5 minerals in descending order of magnitude: magnesium, iron, calcium, potassium, and sodium

3 The 4 vitamins are B1, B2, B6, and folic acid

A blank template of a food additives table is shown below because the product contained no food additives.

name	calories	quantity	quality	qualifier
total				
sugars				
non-nutritive sweeteners				
fibre				
minerals				
sodium				
vitamins				
anti-oxidants				
other nutrients				
other non-nutritive items				