

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
HEALTH
ORGANIZATION



JOINT OFFICE: Viale delle Terme di Caracalla 00153 ROME Tel: 39 06 57051 www.codexalimentarius.net Email: codex@fao.org Facsimile: 39 06 5705 4593

Agenda Item 8

CX/NFSDU 09/31/8
July 2009

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON NUTRITION AND FOODS FOR SPECIAL DIETARY USES Thirty first Session

Robert Schumann Hall, Museum Kunst Palast, Düsseldorf, Germany
2 – 6 November 2009

DISCUSSION PAPER ON THE NUTRIENT REFERENCE VALUES (NRVS) FOR NUTRIENTS ASSOCIATED WITH RISK OF NONCOMMUNICABLE DISEASES

Prepared by the United States and Thailand

Governments and interested international organizations are invited to submit comments or information on the document below, especially on questions in boxes, and should send their replies, preferably by an email, to: 1) Mr Georg **Müller**, Federal Ministry of Food, Agriculture and Consumer Protection, Rochusstraße 1, 53123 Bonn, Germany, Fax: +49 (228) 99 529 49 65, e-mail: ccnfsdu@bmelv.bund.de with a copy to: 2) Ms Nancy T. **Crane**, Regulatory Review Scientist, Office of Nutrition, Labeling and Dietary Supplements, Center for Food Safety & Applied Nutrition, Food and Drug Administration (HFS-830), 5100 Paint Branch Parkway, College Park, MD 20740, USA, Fax: +1(301) 436 2636, e-mail: nancy.crane@fda.hhs.gov , 3) Prof Kraisd **Tontisirin**, Chairman of the National Sub-Committee on Nutrition, National Bureau of Agricultural Commodity and Food Standards (ACFS), 50 Phahonyothin Rd., Chatuchak, Bangkok 10400, Thailand, Fax: +662-5613373, e-mail: kraisid.tontisirin@gmail.com and 4) Secretary, Codex Alimentarius Commission, Joint WHO/FAO Food Standards Programme, FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy, Fax +39-06-5705-4593, e-mail codex@fao.org by 15 September 2009.

I. INTRODUCTION

1. At the 30th (2008) Session of the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU), an *ad hoc* physical working group considered the appropriateness, importance and timing of potential new work to develop Nutrient Reference Values for labelling purposes (NRVs) for nutrients that are associated with increased or decreased risk of noncommunicable diseases (CRD1). A number of participants emphasized the public health importance of this topic, and indicated that the Committee should proceed in considering new work, and in the development of related principles for establishing these NRVs. Another delegation expressed the view that the development of these NRVs should not be dependent on the outcome of deliberations in the Codex Committee on Food Labelling (CCFL) on revising the list of nutrients in nutrition labelling.

2. At the plenary session, the Committee noted the report of the *ad hoc* Physical Working Group, and agreed with the recommendation that the Committee should not delay consideration of new work on the

development of NRVs for nutrients that are associated with increased or decreased risk of noncommunicable diseases (ALINORM 09/32/26, para 152).

3. The Committee therefore agreed to convene a physical working group to be led by the United States and Thailand, open to all members and observers and working in English, French and Spanish that would meet prior to the next CCNFSDU session. The charge for the working group was to:

- Develop principles and criteria for the development of NRVs for nutrients associated with risk of noncommunicable disease; and
- Based on the agreed upon principles and criteria, to select and prioritize nutrients for development of NRVs (ALINORM 09/32/26, para 153).

4. The Committee further agreed that the Delegation of the United States and Thailand would prepare a background paper for circulation in advance of the next session, and that the physical working group would consider the paper and comments in developing their proposals (ALINORM 09/32/26, para 154).

5. To facilitate development of proposals at the next session, this paper provides additional background that may be relevant to the working group's charge, and seeks comment on: 1) draft principles and criteria for the development of NRVs associated with risk of noncommunicable disease, and 2) preliminary recommendations on the prioritization of nutrients based on draft principles and criteria. In addition, we recommend that at the next session, the physical working group and Committee consider the development of a draft project document to propose new work to establish these NRVs.

6. We also seek comment on how to best characterize these NRVs in any new work proposal (Please refer to definition section). In the meantime, throughout this paper we refer to "NRVs associated with risk of noncommunicable diseases", which is the terminology used in the Global Strategy on Diet, Physical Activity and Health, and have abbreviated this as "NRVs-NCD".

7. In a related matter, at the last CCNFSDU session the Representative of the FAO indicated that a FAO/WHO Expert Consultation on Fat and Fatty Acids in Human Nutrition was to be held in Geneva on 10-14 November 2008. The consultation was asked to develop recommendations on requirements and review scientific evidence related to inadequate and excess intakes of fats and fatty acids to health risks and benefits (ALINORM 09/32/26, para 26).

II. BACKGROUND: OVERVIEW OF CONSIDERATION OF THE GLOBAL STRATEGY WITHIN CODEX

8. WHA Resolution 57.17 endorsed the Global Strategy on Diet, Physical Activity and Health (hereafter referred to as the "Global Strategy") and requested that the Codex Alimentarius Commission continue to give full consideration, within the framework of its operational mandate, to evidence-based action it might take to improve the health standards of foods, consistent with the aims and objectives of the Strategy. The Global Strategy recognized the role of dietary patterns and both food and nutrient intake recommendations in reducing risk of noncommunicable disease.

9. Section 3.4.4 of the *Codex Guidelines on Nutrition Labelling* (CAC/GL 2-1985, (Rev. 1-1993) permits the voluntary declaration of amounts of protein and 14 vitamins and minerals as a percentage of the NRVs as a means of informing the consumer of the significance of the quantities contained in a food. In addition, Section 4.1 of the *Guidelines for Use of Nutrition and Health Claims* (CAC/GL 23-1997, Rev.1-2004) provides for nutrition claims for vitamins and minerals for which NRVs have been established, and for nutrition claims relating to energy, carbohydrate and fat and components thereof, and fibre and sodium.

10. In its draft action plan for implementing the Global Strategy, the WHO and FAO proposed that the CCNFSDU and CCFL consider the development of NRVs for nutrients that are associated with both increased and decreased risk of noncommunicable diseases (CL 2006/44-CAC). In addition, the Commission approved new work for the CCNFSDU to develop general principles for revising and

expanding NRVs for vitamins and minerals in the *Guidelines on Nutrition Labelling* (ALINORM 08/31/rep, Appendix X).

11. The Commission also approved new work for the CCFL to consider amendments to these Guidelines concerning the list of nutrients in Section 3.2 that should always be declared on a voluntary or mandatory basis; discussion of issues related to mandatory labelling; and development of criteria or principles for legibility and readability of nutrition labels (ALINORM 08/31/22, paras 44 to 46 and Appendix IX and ALINORM 08/31/REP, Appendix X).

12. With regard to the list of nutrients that should always be declared, the CCFL proposed at their last meeting to add saturated fat and total sugars, and to retain sodium/salt, *trans*-fatty acids, added sugars, and dietary fibre in square brackets for further consideration (ALINORM 09/32/22, paras 13-42 and Appendix II). The Committee discussed the issue of sodium and salt. It agreed on the importance of the nutrient and that it should be included in the list, but decided to retain “sodium/salt” in square brackets because of diverse views on which term to use. An electronic working group led by the Delegation of New Zealand will make recommendations on terminology to the next CCFL session. The Committee referred certain issues to CCNFSDU including a request to consider inclusion of saturated fat and sodium in relation to nutrient reference values for nutrients associated with risk of noncommunicable diseases (ALINORM 09/32/22 para 41).

III. PRINCIPLES AND CRITERIA FOR THE DEVELOPMENT OF NRVS ASSOCIATED WITH INCREASED OR DECREASED RISK OF NON-COMMUNICABLE DISEASES

A. Overview and Organization of Topics

13. A mandate for the physical working group at the next CCNFSDU session is to develop principles and criteria for the development of NRVs for nutrients associated with risk of noncommunicable disease. In a related effort, the Delegation of the Republic of Korea is leading an electronic working group to continue work on general principles for establishing vitamin and mineral NRVs (ALINORM 09/32/26, para 122). On April 27, 2009, the Codex Secretariat circulated to Codex members and observers a revised draft of these principles for comment entitled, “Proposed Draft Annex to the Codex Guidelines on Nutrition Labelling: General Principles for Establishing Nutrient Reference Values of Vitamins and Minerals for the General Population” (hereafter referred to in this paper as the April 27th draft).

14. As noted above, the establishment of vitamin and mineral NRVs and this potential new work both involve the development of general principles and the revision of the list of NRVs in Section 3.4.4 in the Codex *Guidelines on Nutrition Labelling*. While we believe it is appropriate for work on these two agenda items to progress in separate tracks and with different time frames, we believe it also important to keep the work on these two agenda items closely coordinated. With this approach and provided that new work on these additional NRVs is approved, the Committee can decide at a later stage whether it would be appropriate to merge certain text relating to the general principles, and how best to present the NRVs in Section 3.4.4.

15. Accordingly, we propose that the Committee consider retaining, wherever applicable, the same or similar text and organization as the April 27th draft of general principles, with appropriate modifications to reflect topics specific to the NRVs-NCD. Below is a proposed minimal adaptation of the headings and topics addressed in the April 27th draft of the vitamin and mineral NRV general principles (with suggested changes to the April 27th draft headings or topics identified by bolded text and strikeouts). Specifically, in the outline below and in other parts of this paper where we refer to text from the April 27th draft (e.g., paragraph 18) we identify suggested changes with bolded text to show proposed new text and strikeouts to show proposed deletions that are not applicable). This outline is used to facilitate Codex member and observer comment in the sections that follow and as a basis for summarizing preliminary draft text for the Committee’s consideration in an Annex to this paper. In addition, we have placed certain text in italics and round brackets in the body of this paper and in the Annex (e.g., the terminology “NRVs-NCD”) to identify text that in particular may be a focus of discussion at the physical working group meeting.

1. PREAMBLE

- Description of population for which these NRVs are applicable
- Purpose and use of NRVs by governments

2. DEFINITION(S)

3. GENERAL PRINCIPLES

- **Criteria for Selection of Nutrients**
- Selection of suitable data sources to establish (*NRVs-NCD*)
- Selection of the appropriate basis **for Expressing** (*NRVs-NCD*)
- ~~Consideration of different age-sex specific values~~
- ~~Consideration of upper levels of intake~~

Question A1. For establishing principles and criteria for NRVs-NCD, do you support a similar organization as for the vitamin and mineral NRVs with separate sections for a Preamble, Definition(s), and General Principles at a minimum?

Question A2. Do you support the above topics under general principles or have other suggestions?

B. Description of Population(s) for Which NRVs-NCD Would be Applicable

16. The April 27th draft states in the preamble:

“These principles apply to the establishment of Codex Nutrient Reference Values for labeling purposes for vitamins and minerals for the general population identified as individuals [36 months and older].”

Note: The Codex *Guidelines on Nutrition Labelling* (CAC/GL 2-1985, Rev.1-1993) do not currently describe the population for which the protein and vitamin and mineral NRVs are applicable.

Question B1. How would you describe the population(s) for which NRVs-NCD would be applicable? For example, do you support their applicability to the “general population”?

Question B2. If the answer to the second question above is “yes”, is there a need to further define an age range for the “general population”? If so, what criteria should be used for defining this age range?

C. Purpose and Use of NRVs-NCD

17. The April 27th draft includes text in the preamble to describe the purpose and use of vitamin and mineral NRVs for the general population. We propose that the physical working group consider whether the purpose and use of NRVs-NCD should also be described in a preamble to general principles--- and if so, how the draft text for the vitamin and mineral NRVs might be appropriately adapted. Specifically, the Committee may wish to consider whether the purpose of NRVs-NCD is generally the same as the vitamin and mineral NRVs---that is, “for helping consumers 1) estimate the relative contribution of individual products to overall healthful dietary intake, and 2) as one way to compare the nutrient content between products.” The Committee may also consider whether the use of the NRVs-NCD is generally the same as the vitamin and mineral NRVs---that is, “A government may select to use the NRVs, or alternatively, consider the suitability of the general principles and additional factors specific to a country or region in

establishing their own reference values for labelling purposes.” In support of flexibility in the use of NRVs-NCD by Codex member countries, the Global Strategy reaffirmed that:

“...Appropriate intake levels for energy, nutrients and foods, including free sugars, salt, fats, fruits, vegetables, legumes, whole grains, and nuts shall be determined in accordance with national dietary and physical-activity guidelines based on the best available scientific evidence and as part of Member States’ policies and programmes taking into account cultural traditions and national dietary habits and practices.”

18. Taking the above into consideration, and as a means to facilitate comment on the purpose and use of NRVs-NCD, below is a possible minimal adaptation of the vitamin and mineral NRV text in the April 27th draft for the Committee’s consideration (with possible additions in bold text and deletions marked by ~~strikeout~~).

“... These values may be used for helping consumers 1) estimate the relative contribution of individual products to overall healthful dietary intake, and 2) as (*one way/a means*) to compare the nutrient content between products. A government may select to use the NRVs-NCD, or alternatively, consider the suitability of the general principles below and additional factors specific to a country or region in establishing their own reference values for labelling purposes. ~~For example, at the national level, population weighted values for the general population may be established by weighting science based reference values for daily intakes for age sex groups using census data for a country and proportions of each age sex group. In addition, governments may establish food label reference values that take into account country or region specific factors that affect nutrient absorption or utilization (e.g., the bioavailability of nutrients such as iron in habitual diets.). Governments may also consider whether to establish separate food label reference values for specific segments of the general population, such as pregnant and lactating women.”~~

19. In the first sentence in the above paragraph, we propose that the physical working group consider whether it would be preferable to refer to these values as “a means” rather than “one way” to compare the nutrient content between products. We note, however, that the latter term was used in the April 27th draft and may be preferred wording by certain Codex member countries. The other edits recommend removal of text that may not be applicable to the development of NRVs-NCD (e.g., text that refers to the option at the national level of weighting science based reference values for daily intakes for age-sex groups using census data for a country...”).

Question C1: Do you agree that the purpose and use of NRVs-NCD should be addressed in a preamble in the development of general principles for these NRVs?

Question C2: If so, do you have comments on the above possible adaptation of text in the vitamin and mineral NRV preamble or other suggestions for text to describe the purpose and use of NRVs-NCD?

D. Definitions

20. The April 27th draft includes a definition section. We propose that the physical working group consider the need for any definitions in the development of general principles for NRVs-NCD. For example, the Committee may wish to consider whether a new Codex term should be defined to differentiate the NRVs-NCD from the vitamin and mineral NRVs. As background, the Global Strategy (WHA 57.17) refers to noncommunicable diseases and provides examples of major noncommunicable diseases (e.g., cardiovascular disease, type 2 diabetes and certain types of cancer), but does not define the term. By comparison, the term (diet-related) chronic disease was the focus of a 2003 report of a Joint WHO/FAO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases (which also addressed the above cited diseases plus others). In considering differences between the terms “noncommunicable diseases” and “chronic diseases”, one interpretation of the former term is that it is broader---e.g., encompassing both nutrient deficiency diseases and chronic diseases. However, both terms are similar in that they may be interpreted to encompass both diet- and non-diet related disease.

21. In addition, we note that the April 27th draft defines the following terms that are applicable to the establishment of vitamin and mineral NRVs: 1) Individual Nutrient Level (INL₉₈) and 2) Upper Nutrient Level (UNL). The Committee may wish to consider the applicability of the above terms as well as whether there are other terms that should be defined in these general principles to describe the type of science-based values from suitable data sources that may be used as a basis for the NRVs-NCD. We note, for example, that the Institute of Medicine of the National Academy of Sciences has established recommended intake values (either Recommended Dietary Allowance which is comparable to INL₉₈, or Adequate Intake values) as well as UNL values only for vitamins and minerals. Thus, if the Committee decides to establish an NRV-NCD for a mineral such as sodium, it may be appropriate to take these values into consideration in this particular case. However, separate committees of scientific experts are often convened at the national, regional, and international levels to develop dietary recommendations aimed at reducing risk of noncommunicable disease which include macronutrient recommendations, and for which the terminology and bases for deriving these recommendations are different than for vitamins and minerals. Consequently, defining this terminology should consider the identification of suitable database(s) for these NRVs based on the agreed upon criteria.

Question D1: Is there a need for a definition section in the general principles, and if so what term(s) should be defined?

Question D2: In the Annex to this paper, do you support option 1 or 2 or another option?

E. Scope of nutrients to be considered

22. We propose that the physical working group and Committee consider provisions in the *Guidelines on Nutrition Labelling* and *Guidelines for Use of Nutrition and Health Claims* as they may apply to the scope of nutrients to consider in establishing NRVs-NCDs. For example, in section 3.4.4 the expression of nutrient content as a percentage of the NRV for protein and 14 vitamins and minerals is voluntary, whether or not the declaration of the nutrient is mandatory. In a similar manner, we assume that the declaration of NRVs-NCDs would be voluntary, and could sometimes be declared in conjunction with nutrition or health claims. Thus, while the CCNFSU may wish to consider CCFL proposals to expand the list of nutrients that should always be declared in Section 3.2 of the *Guidelines on Nutrition Labelling*, we do not see a basis for the Committee to limit the scope of consideration of NRVs-NCDs to this list.

23. As previously noted, the CCFL referred to the CCNFSU a request to consider inclusion of saturated fat and sodium in relation to NRVs for nutrients associated with risk of noncommunicable diseases. These two nutrients were among those suggested for the development of NRVs in the WHO/FAO draft action plan for implementation of the Global Strategy (CL 2006/44-CAC, September 2006, para 24). We further note that sodium is not among the nutrients listed for consideration of vitamin and mineral NRVs in the April 27th draft which proposed to use as its main basis Recommended Nutrient Intake Values in *Vitamin and Mineral Requirements in Human Nutrition*, 2nd ed., FAO/WHO, 2004.

Question E1: Do you agree that the Committee should consider CCFL proposals for expanding the list in section 3.2 but also consider additional factors and criteria in proposing nutrients for NRVs-NCD?

Question E2: Do you support including sodium and saturated fat in the scope of nutrients to be considered for NRVs-NCD?

F. Criteria for Selection of Nutrients, Suitable Data Sources, and Prioritization

24. At the next session, the physical working group is asked to select and prioritize nutrients for development of NRVs associated with risk of noncommunicable disease based on agreed upon principles and criteria.

Criteria for Selection of Nutrients

25. Criteria that may be relevant to the selection of these nutrients include:

1. Strong and relevant scientific evidence for the nutrient-disease relationship
2. Public health importance of the nutrient-disease relationship among Codex member countries
3. Strong and relevant scientific evidence for a quantitative reference value for daily intake that is applicable to the general population of Codex member countries

26. With regard to criterion # 2, an example of a nutrient in which the public health importance may vary among countries is *trans*-fatty acids, because of varying amounts in countries' food supply. For example, at the last CCFL session several delegations did not agree with including *trans*-fatty acids in the list of nutrients that should always be declared in nutrition labelling because it was not a nutrient of concern in their countries and measures had been taken to reduce the use of *trans*-fatty acids by manufacturers and to reduce intake by consumers. However, other delegations and observers supported its inclusion and so it was left in brackets with further comment requested through a circular letter (ALINORM 09/32/22, para 23-26).

Question F1: What are your views about the use of the above criteria for the development of NRVs-NCD?

Question F2: Are there other criteria that are applicable?

Criteria for Suitable Data Sources

27. The following draft principles and criteria are included in the April 27th draft under the heading of "Selection of Suitable Data Sources to Establish NRVs" (for vitamins and minerals):

"Relevant and recent values provided by FAO/WHO should be taken into consideration in establishing NRVs. If such values are not available, then relevant and recent values from recognized authoritative scientific bodies other than FAO/WHO could be used.

The following criteria should be used to select suitable sources for these values:

- The sources should reflect independent review of the science by recognized authoritative scientific bodies;
- Higher priority may be given, as appropriate, to more recent values from recognized scientific bodies."

Note: In the Annex to this paper, the above text is included for consideration with one addition to the first sentence intended for clarification (i.e., "Relevant and recent **daily intake reference** values provided by FAO/WHO...").

Question F3: What are your views about the use of the above principles and criteria for selection of suitable data sources in the development of NRVs-NCD?

Question F4: Are there other principles and criteria that are applicable?

Question F5: Do you have suggestions for specific references that the Committee should consider based on the above criteria?

Prioritization

28. As previously noted, the physical working group is asked to select and prioritize nutrients for development of these NRVs.

Question F6: Based on your responses to F1 through 5 above and consideration of any other

relevant information, are there particular nutrients that should receive the highest priority for the development of NRVs-NCD?

G. Selection of Appropriate Basis for Expressing NRVs-NCD

29. In the development of general principles for establishing NRVs-NCD, we propose that the physical working group consider the following draft text as a starting point for describing the basis for expressing NRVs-NCD.

“For practical application in nutrition labelling, a single (*NRV-NCD*) for the general population should be established for each nutrient that meets the principles and criteria in this Annex.

Daily intake reference values from recognized authoritative scientific bodies that may be considered for (*NRVs-NCD*) include values expressed in absolute amounts or as a percentage of caloric intake.

For daily intake reference values expressed as a percentage of caloric intake, the single (*NRV-NCD*) should be based on a reference caloric intake for the general population, and expressed in grams or milligrams. Governments may use a Codex (*NRV-NCD*) based on the reference caloric intake of (2000) calories, or may derive their own reference values for nutrition labelling based on another reference caloric intake that considers factors specific to their country or region.”

Question G1: With regard to daily intake reference values from recognized authoritative scientific bodies that are expressed as a percentage of caloric intake, do you support establishing a Codex NRV-NCD based on a reference diet of 2000 calories or another calorie level?

Question G2: Do you agree that any single daily reference caloric intake selected for the Codex NRVs-NCD may not be applicable to all countries? If so, do you support: 1) indicating this in the general principles, and 2) including in any proposed table on NRVs-NCD not only the NRVs-NCD based on the single reference caloric intake (in milligrams or grams), but also daily intake reference values for the selected nutrients (as a percentage of calories) for governments to derive their own values based on another reference caloric intake?

IV. PROPOSAL FOR NEW WORK

30. At the next session, we recommend that the physical working group and Committee consider the development of a draft project document to propose new work to establish NRVs for nutrients associated with risk of noncommunicable disease. The purpose of this proposed work would be to establish principles and criteria for the development of these NRVs, and to establish NRVs for selected nutrients based on these principles and criteria. We anticipate that part of this work would entail proposing amendments to sections of relevant Codex texts that would need to be revised to reflect the addition of these new NRVs.

Annex 1

PROPOSED DRAFT PRINCIPLES FOR ESTABLISHING NUTRIENT REFERENCE VALUES FOR NUTRIENTS ASSOCIATED WITH RISK OF (*NONCOMMUNICABLE DISEASES*) (*FOR THE GENERAL POPULATION*)¹**1. PREAMBLE**

These principles apply to the establishment of Codex Nutrient Reference Values for labelling purposes for nutrients associated with risk of (*noncommunicable diseases NRVs-NCD*) (*for the general population identified as individuals SPECIFY LOWER AGE RANGE and older*). These values may be used for helping consumers 1) estimate the relative contribution of individual products to overall healthful dietary intake, and 2) as (*a means/one way*) to compare the nutrient content between products. A government may select to use the (*NRVs-NCD*), or alternatively, consider the suitability of the general principles below and additional factors specific to a country or region in establishing their own reference values for labelling purposes.

2. DEFINITION

(Option 1:

Nutrient Reference Values - Noncommunicable Disease (NRVs-NCD) refer to Codex nutrient reference values for food labelling purposes for nutrients that are associated with risk of noncommunicable diseases.

or

Option 2:

Nutrient Reference Values - Diet-Related Chronic Disease (NRVs-DRCD) refer to Codex nutrient reference values for food labelling purposes for nutrients that are associated with risk of diet-related chronic diseases.

and

Any other terms identified in comments that may be needed to describe the type of science based values from suitable data sources that may be used as a basis for NRVs associated with risk of noncommunicable disease).

3. GENERAL PRINCIPLES FOR ESTABLISHING (*NRVs-NCD*)**3.1 Criteria for Selection of Nutrients**

The following criteria should be considered in the selection of nutrients for the establishment of (*NRVs-NCD*):

- *(Strong and relevant scientific evidence for the nutrient-disease relationship*
- *Public health importance of the nutrient-disease relationship among Codex member countries*
- *Strong and relevant scientific evidence for a quantitative reference value for daily intake that is applicable to the general population of Codex member countries.)*

¹ This Annex summarizes some of the draft proposals and options presented in this paper, and identifies certain text in italics and round brackets that in particular may be the focus of discussion at the *ad hoc* physical working group meeting. We propose that the physical working group consider revisions to this Annex based on Codex member and observer comments to questions raised in this paper and discussion during the physical working group meeting.

3.2 Selection of Suitable Data Sources to Establish (*NRVs-NCD*)

3.2.1 Relevant and recent daily intake reference values provided by FAO/WHO should be taken into consideration in establishing (*NRVs-NCD*). If such values are not available, then relevant and recent values from recognized authoritative scientific bodies other than FAO/WHO could be used.

3.2.2 The following criteria should be used to select suitable sources for these values:

- The sources should reflect independent review of the science by recognized authoritative scientific bodies;
- Higher priority may be given, as appropriate, to more recent values from recognized authoritative scientific bodies.

3.3. Selection of Appropriate Basis for Expressing (*NRVs-NCD*)

3.3.1 For practical application in nutrition labelling, a single (*NRV-NCD*) for the general population should be established for each nutrient that meets the principles and criteria in this Annex.

3.3.2 Daily intake reference values from recognized authoritative scientific bodies that may be considered for (*NRVs-NCD*) include values expressed in absolute amounts or as a percentage of caloric intake.

3.3.3 For daily intake reference values expressed as a percentage of caloric intake, the single (*NRV-NCD*) should be based on a reference caloric intake for the general population, and expressed in grams or milligrams. Governments may use a Codex (*NRV-NCD*) based on the reference caloric intake of (2000) calories, or may derive their own reference values for nutrition labelling based on another reference caloric intake that considers factors specific to their country or region.