

## Opportunity to Respond to Questions

This form provides the opportunity to respond to the questions posed in the Background Paper: Joint FAO/WHO Development of a Scientific Collaboration to Create a Framework for Risk Assessment of Nutrients and Related Substances.

Responses may be typed in to the form directly or appended as an 'attachment' to each question (use 'Upload file'). Fields with asterisks are required. Responses and your name/organization will be available for public viewing.

---

### *Name/Organization*

#### **Title**

Professor

#### **First name \***

Xiaoguang

#### **Last name \***

YANG

#### **Name of Organization (Use 'None' if none) \***

National Institute of Nutrition and Food Safety, China CDC

#### **Affiliation Category (click on bar to select a sector) \***

Academic

#### **Today's Date \***

06/12/2004

---

### **Question 1**

The Background Paper discusses the possibility that hazard identification and hazard characterization have global relevance, while exposure assessment and risk characterization are relevant to populations. If such a conceptual framework for the four steps is appropriate, then scientific principles could be organized and considered along these same lines.

**Question 1a: Is the distinction between global relevance and population relevance for the four risk assessment steps a meaningful consideration for the purposes of developing an international nutrient risk assessment approach? (Please indicate why or why not)**

I agree that the distinction between global relevance and population relevance is a meaningful consideration for the purpose, it is impossible to classify very clearly, and there is always some overlap between the categories.

**Question 1b: If so, please provide specific suggestions about how best to further articulate and make good use of the differences in identifying the scientific principles for nutrient risk assessment.**

So, I think the genetic background and the environment background should be considered both for global relevance and population relevance, such as one local population have lived in some environment (high exposure) for a long time, their biological or physiological may be the genetic background is different with other population.

---

### **Question 2**

Hazard identification and characterization involve a number of decision points that require scientific judgment in order to derive a UL. Please provide input as to how guidelines for these judgments can be developed for the following decision points:

**Question 2a: Criteria for the evaluation of the quality and utility of relevant scientific evidence.**

**Question 2b: Extrapolation to various age/gender groups.**

case by case principles, generally speaking, base on the requirement, metabolic function and physiological character, sometime it is difficult to identify the vulnerable group, e.g. the requirement of iron of male adults is lower than the child-bearing women ,the intake of food is high ,and there is no active metabolic way to emission iron, for food fortification , the male adults may be considered as one vulnerable group.

**Question 2c: Determination and use of uncertainty factors.**

For UF, the form of nutrient (chemical and physical), the source of nutrient (from food or artificial), and the bioavailability in the dietary pattern should be considered as UF .

**Question 2d: Other**

---

**Question 3**

**The conduct of exposure assessment and risk characterization also requires sound scientific principles that can be applied to the various decision points, including but not limited to compilation and collection of intake data and decision-making for summarizing the potential for harm.**

**Question 3a: Please provide input on general scientific principles relevant to the process of determining exposure for a nutrient or related substance.**

Case by case principles. Background (genetic and environment) principles, e.g. the local population(Enshi of China) live in high exposure environment of Se, there is some compensatory adaptation. Distinguishing principles (such as nature form in the food or artificial form ), e.g. the UL of seleno-methionine is higher than the selenite.

**Question 3b: Please provide input on general scientific principles for the characterization of the severity and the degree to which intakes exceed the UL or other aspects of risk characterization.**

---

#### ***Question 4***

The Background Paper reflects a 'thought process' and is intended to inform a longer process for the development of a technical expert workshop. Clearly the process will benefit from additional input.

**Question 4a: Please provide comments on other general factors or considerations that could be taken into account during the process of identifying principles for nutrient risk assessment.**

**Question 4b: Please provide other comments on the content of the Background Paper.**