

Nestle Nutrition Institute Africa Research Priorities 2014-2016

A. INFORMATION ON THE RESEARCH FOCUS AREAS

1. **Maternal, Foetal & Child Health Nutrition in the first 1000 days**

This research track focuses on nutrition pre-conception and during pregnancy for mothers (including pregnant teenagers), pre-natal nutrition for the foetus and early nutrition and growth of young children from birth to age 2 years.

Projects which seek to explore the link between Mother-Foetus-Newborn-Early Child Health on a continuum will receive preference. The research call also aims to address the adolescent as a special mother whose health (and that of the developing foetus) is of particular importance though presently under-investigated.

Examples of key topics from which research questions appropriate for the African scenario can be generated:

- a) The impact of mother's prenatal nutrition on their foetus and young children.
- b) Maternal nutrition and health during the antepartum period and their pre/post natal health.
- c) Antepartum nutrition of mothers and intrauterine growth patterns of their fetuses.
- d) Early infant feeding as a driver of early growth and child health until the age of 2 years
- e) Drivers of appropriate breastfeeding habits in communities including important interventions that can bring about positive breast feeding practices
- f) Post-breast feeding practices in Africa including complementary feeding practices
- g) Design and development of complementary foods from local/indigenous plants
- h) Acute severe malnutrition as an emergency paediatric problem to child survival in general.

2. **Nutrition in the human life cycle**

The NNIA seeks to solicit innovative proposals that will explore important nutritional issues afflicting individuals 2 years and older. The life cycle periods that holds unique challenges include those children 2-4 years, adolescents (), adults and the geriatric population.

Examples of key topics from which research questions can be generated:

Ages 2-4 years:

- The relationship between pre-school macro and micronutrition and growth/development with emphasis on effective intervention nutritional programs.
 - Obesity/overweight in the light of changing sociocultural dynamics on the continent.
- a) Ages 5-17 years:
Effective nutrition strategies in late childhood and adolescence and their impact on stunting (younger child) and the prevention of overweight need to be designed, implemented and evaluated. The role and impact of school health programmes on late childhood growth, development and health is of special concern as a neglected topic in research.
- b) 18-64 years:
The key research topics here are in the area of nutrition and its relationship with Non-Communicable Diseases (NCDs). Emphasis should be on interventional approaches towards using nutrition to modulate NCDs. The emphasis ought to be on preventative measures.
- c) ≥65 years:
Research on nutrition in gerontology is a growing area where innovative research proposals will be considered.

3. Nutrition and infectious diseases

The relationship between infectious diseases and nutrition (especially among children) is complex.

Examples of key topics from which research questions can be generated:

- a) The association between nutrition/nutritional status and health outcomes of individuals with acute/chronic infectious diseases.
- b) The relationship between acute and chronic infectious diseases and nutrition/growth parameters.

4. Socio-environmental determinants of nutrition and food behaviour

In order to change eating behaviour positively, one has to understand the behaviour and the determinants thereof.

Examples of key topics from which research questions can be generated:

- a) Identification of socio-cultural determinants of food choices at community and individual level (what are they and how to measure them in a valid, reliable and sensitive manner)
- b) Effective and appropriate theory/model driven behaviour modification

5. Food and nutrition security

There are multiple environmental/socio-cultural issues driving nutrition in Africa. These may have positive or negative impacts on attainment of adequate and appropriate nutrition.

Examples of key topics from which research questions can be generated:

- a) Food safety and the socio-demographic determinants of appropriate crop choices in African communities
- b) Nutritional value enhancement of crops and value of such food in improving community and public nutrition
- c) Sustainable strategies to address food and nutrient security
- d) Design and development of complementary foods from indigenous/local crops
Design and development of enriched foods according to specific nutritional needs

B. GUIDE FOR APPLICANTS

An application form is available for download on www.nnia.org. With regard to the actual research proposal, please note below the additional guidelines:

Brief background:

This should specifically outline the problem statement and indicate the projected impact of the findings on health and well being of humans in Sub-Saharan Africa.

Statement of importance of intended work:

The specific impact should be clearly stated. It may be primary (emanating from these results) or secondary (after subsequent studies. This is particularly important for pilot studies which are often undervalued.

Objectives:

These should be focused and measurable.

Study design:

This should be brief, clear and appropriate for the stated objectives. Proposals with experimental, interventional or policy influencing designs will hold an advantage. Magnitude determining studies will however remain important being judged on the merit of the subject matter.

Outline of methods:

A brief but precise and informative methodology will be required. This should be in line with study design and objectives. Where necessary analytic methods should be clearly stated.

Budget:

A brief budget outline covering the major components of research.

C. AVAILABLE FUNDING

The NNIA will only fund up to the following maximum amount to cover tuition, learning materials, and research:

- US\$20 500 for PhD Study and Research Grants not linked to the attainment of a qualification
- US\$7 000 for Masters Study