

Van Royen K, Lachat C, Holdsworth M, Smit K, Kinabo J, Roberfroid D, Nago E, Garimoi Orach C, Kolsteren P. (2013). **How can the operating environment for nutrition research be improved in sub-Saharan Africa? The views of African researchers.** PLoS ONE 8: e66355. doi:10.1371/journal.pone.0066355. (Available at: www.plosone.org)

Lachat C, Nago E, Roberfroid D, Holdsworth M, Smit K, Kinabo J, Pinxten W, Kruger A, Kolsteren P. (2014) **Developing a Sustainable Nutrition Research Agenda in Sub-Saharan Africa—Findings from the SUNRAY Project.** PLoS Med 11(1): e1001593. doi:10.1371/journal.pmed.1001593 (Available at: www.plosmedicine.org)

Introduction

Malnutrition remains prevalent in Africa and has expanded to encompass both under- and over-nutrition; many countries will fail the health- and nutrition-related Millennium Development Goals. Interest and investment in nutrition have increased in recent years, as evidenced by initiatives such as Scaling Up Nutrition. To ensure the effectiveness of nutrition programs, it is also important to invest in relevant program-linked nutrition research. Research priority setting activities are useful to develop a common research agenda and focus on the most important knowledge gaps that limit program success.

The SUNRAY (Sustainable Nutrition Research for Africa in the Years to come) project aimed to identify priorities for nutrition research in sub-Saharan Africa (SSA), and was led by a consortium of members which included researchers from European and sub-Saharan Africa institutions, a non-governmental organization, and an organization that funds research in sub-Saharan Africa. The project considered all forms of malnutrition. Activities conducted during the first stage of this project included a review of nutrition research institutions in sub-Saharan Africa and the types of research published, a survey of perceptions of nutrition research among nutrition researchers in SSA (1), and a review of the potential impact of social, demographic, agricultural, and environmental trends on the nutrition in sub-Saharan Africa and research needs to address these changes (2). In a second stage, a priority-setting exercise was conducted primarily among stakeholders from government and academia in sub-Saharan Africa (3).

This issue of NNA summarizes two articles recently published in *PLOS One* and *PLOS Medicine* which describe the results of the SUNRAY project.

Survey on improving the operating environment for nutrition research in sub-Saharan Africa

In the first stage of the SUNRAY project, data were collected by means of semi-structured interviews with people actively involved in nutrition research in sub-Saharan Africa. The purposes of the interviews were to identify the barriers and explore the resources needed to conduct high quality nutrition research (1). Individuals were identified through existing nutrition networks (i.e. the Federation of African Nutrition Societies and the African Nutrition Leadership Program). A total of 133 interviews were completed.

The main barriers identified for effective nutrition research were 1) the lack of funding, which was attributed to policymakers' lack of understanding of the importance of nutrition research; and 2) under-utilization of research findings for developing policy (1). Professional capacity building, with a focus on

research methodology, was perceived as the most important priority for advancing nutrition research in sub-Saharan Africa. Multi-disciplinary research and international and collaborations across African countries were seen as essential to build capacity.

Priority setting of the nutrition research agenda

The research priority setting exercise was conducted through three regional workshops in Africa (Tanzania, Benin, and South Africa) (3). Participants were identified through consultation with the United Nations University Food and Nutrition Programme, the International Union of Nutritional Sciences, and the Federation of African Nutrition Societies; the target for participation was one representative each from government and academia per country.

The workshops included 117 participants from 40 countries in sub-Saharan Africa. Of the participants, 52% were senior researchers, 30% were policy makers in nutrition, and 18% were external stakeholders. The workshops began with presentations of the findings of stage 1 of the project. Participants worked in small groups to list priorities for research and actions needed to create an enabling environment. Participants then developed ranking criteria and scored the priorities against these criteria. Agreement was reached through consensus. Plenary sessions were convened at each step of the ranking process. At the end of the workshop, external stakeholders were invited to comment on the priorities and actions, although no additional changes were made at this point. In the third stage of the project, the SUNRAY group organized the findings and prepared a 'roadmap' document, with conclusions and recommendations, which was then circulated to participants and external stakeholders.

Three major topics for nutrition research were identified:

- 1) Development of effective community-based interventions to improve nutritional status, including assessing the sustainable impact of interventions and factors for success, and translating this knowledge into policy;
- 2) Evaluation of behavior change strategies at the population level to improve nutritional status; and
- 3) Review of food security interventions to improve nutrition.

Participants also identified four priority actions for creating an enabling research environment:

- 1) Ensure better governance for nutrition research, including better utilization of funding and resources
- 2) Align nutrition research funding with priorities of SSA
- 3) Increase capacity development for nutrition research at the individual, institutional, and country levels.
- 4) Enhance information sharing and communication of nutrition research findings, including establishing a dialogue between nutrition researchers, policy makers, and the community.

Objectives and specific activities were defined for each of the priority research areas and each of the priority actions (for details see table 1 available at:

<http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001593>).

Policy Implications

Most of the identified priorities called for multidisciplinary research and correspond with the global nutrition research agenda (4). The research priorities focused on preventive approaches to malnutrition and emphasized the importance of sustainability of nutrition interventions and the need to translate research into policy and programs.

Although specific priorities for research and action may vary by country, this analysis emphasizes the need to strengthen research capacity within SSA and promote communication between policy makers and researchers. The authors refer to this as the need for a system which ‘stimulates demand’ for nutrition research from policy makers, and holds policy makers accountable for setting evidence-based policies (3).

NNA Editor’s Comments *

Numerous priority-setting analyses have been reported and the findings of the SUNRAY project relate well to previous and ongoing efforts to improve nutrition and health in sub-Saharan Africa. For example, implementation research, including behavior change and other strategies for intervention delivery, were also highly-ranked priorities in a summary of research priorities for reducing the global burden of morbidity and mortality from childhood diarrheal disease (5). The importance of capacity building was also the focus of a 3-day workshop held in Senegal in 2009, where the participants concluded that there is an urgent need to: 1) increase the throughput of public health nutrition training programs at all levels, including undergraduate education, pre-service and in-service professional training, and higher education in public health nutrition and related research skills; and 2) enhance the applied research capacity, so as to provide the evidence base necessary for nutrition program planning and evaluation (6).

References

1. van Royen K, Lachat C, Holdsworth M, Smit K, Kinabo J, et al. (2013) How can the operating environment for nutrition research be improved in sub-Saharan Africa? The views of African researchers. PLoS ONE 8: e66355. doi:10.1371/journal.pone.0066355. Available at: <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0066355>
2. SUNRAY (2012) Challenges for nutrition in sub-Saharan Africa: background documents for the SUNRAY regional workshops. Available at: http://sunrayafrica.co.za/sunray_cms/downloads/dynamic/compound_text_content/sunray_background_papers_english_784c0513767827b63983aa895b24baa5.pdf Accessed 17 March 2014.
3. Lachat C, Nago E, Roberfroid D, Holdsworth M, Smit K, Kinabo J, Pinxten W, Kruger A, Kolsteren P. Developing a sustainable nutrition research agenda in sub-Saharan Africa--findings from the SUNRAY project. PLoS Med. 2014 Jan 28;11(1):e1001593. doi: 10.1371/journal.pmed.1001593. Available at: <http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001593>
4. The Sackler Institute for Nutrition Science (2013) A global agenda for nutrition science. Outcome of a collaborative process between academic and non-profit researchers and the World Health Organization. Available: <http://www.nutritionresearchagenda.org/pdf/Sackler-Agenda-121313-WEB.pdf>
5. Wazny K, Zipursky A, Black R, Curtis V, Duggan C, Guerrant R, Levine M, Petri WA, Santosham M, Scharf R, Sherman P, Simpson E, Young M, Bhutta ZA. Setting research priorities to reduce mortality and morbidity of childhood diarrhoeal disease in the next 15 years. PLoS Med. 2013; 10(5):e1001446. Doi:10.1371/journal.pmed.1001446.
6. Brown KH, McLachlan M, Cardosa P, Tchibindat F, Baker SK. Strengthening public health nutrition research and training capacities in West Africa: Report of a planning workshop convened in Dakar, Senegal, 26-28 March 2009. Glob Public Health. 2010; 5 Suppl 1:S1-19. Epub 2010/12/09.

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