In 2009, Compass undertook stakeholder interviews to identify how counties in Asia and the Pacific could best be supported to accelerate progress towards the MDG targets. These interviews confirmed that many countries in the region required immediate, effective and sustained efforts to address the issue of undernutrition in women and children. Respondents unanimously agreed that many countries with a high burden of undernutrition had limited capacity to efficiently scale-up effective nutrition programs and optimise resources dedicated to nutrition. Evidence-based, high-impact nutrition interventions were often not implemented at scale, and where they had been initiated, implementation was often inefficient and in some cases ineffective. In addition it was reported that in some countries, interventions with limited or no evidence of effectiveness were consuming scarce resources.

To address this short fall, the concept of a nutrition critical appraisal tool (NCAT) was conceived.

Consultation

The concept of the NCAT was shared with key nutrition stakeholders in Asia and the Pacific, including WHO, UNICEF, NGOs, government nutrition staff and public health nutrition experts. These stakeholders confirmed a need for such a tool and reported that the development of the NCAT would strengthen the global momentum in nutrition that had flourished following the publication of the Lancet Journal's landmark 2008 Series on Maternal and Child Undernutrition.

During these consultations, several stakeholders emphasised that many nutrition programs in Asia and the Pacific required intensive practical support to translate technical nutrition knowledge into appropriate actions and policies. The importance of converting international evidence into a tool that is user-friendly and appropriate for audiences with limited nutrition capacity became evident.

Global evidence for nutrition interventions

An extensive review of the grey literature, mapping nutrition programs in the region, was undertaken. Consistent with the regional nutrition stakeholder consultations, the grey literature review revealed that the NCAT filled an important gap in the nutrition landscape.

Compass conducted a series of in-depth literature reviews of the interventions highlighted in the Lancet Series on Maternal and Child Undernutrition, each of which included a summary of the Lancet’s findings on the intervention, a summary of the research published since 2008, and a summary of secondary issues for consideration.
Interventions considered in the reviews included:

- Promotion of appropriate infant and young child feeding through breastfeeding counselling, mass media promotion of breastfeeding and counselling for complementary feeding.
- Micronutrient supplementation or fortification for neonates, infants and/or young children, including vitamin A, vitamin D, vitamin K, iron, iodine, zinc.
- Treating moderate and severe acute malnutrition in infants and young children.
- Micronutrient supplementation or fortification for women, including vitamin A, vitamin D, calcium, iodine, iron, multiple micronutrients.
- Food security and livelihood interventions, including conditional cash transfers, unconditional cash transfers, microcredit programs, homestead food production and food for work programs.

In 2011, WHO announced the establishment of a partnership with the Cochrane Collaboration through which the Cochrane Collaboration compiles and analyses the evidence for nutrition interventions, and WHO presents this evidence along with WHO guidelines and other relevant documents, in the e-Library of Evidence for Nutrition Actions (eLENA). The eLENA database has been used in conjunction with the Compass literature reviews in forming the evidence base for the NCAT. Additionally, Compass literature reviews have been used to provide feedback on several of the WHO micronutrient guidelines that are now available on the eLENA database.

**Development of the NCAT**

Based on the widely-endorsed *Scaling Up Nutrition (SUN) strategy 2012-2015*, which emphasises the importance of taking multi-sectoral, integrated, comprehensive and evidence-based approaches to improve nutrition, an initial layout of the NCAT was developed. The initial design focused on potential intervention points and responsibilities, and comprised three ‘wheels’ for infant and young child feeding; treatment of moderate and severe malnutrition; and supplementation / fortification. Each ‘wheel’ was divided into concentric ‘rings’ representing the government, programming, community and individual levels, and radial ‘slices’ representing interventions and approaches to improving nutrition. The concept was pre-tested with a number of global, regional and national nutrition stakeholders, including WHO, UNICEF, WFP, FAO, Mahidol University, the South Asian Infant Feeding Network and national nutrition stakeholders in Lao PDR, Nepal, Cambodia, Thailand and Timor Leste. Feedback from these consultations indicated that while the tool continued to fill an important gap in the nutrition landscape, the layout was excessively complicated and the information remained unnecessarily technical.

Concurrently, the international nutrition community began to place increasing emphasis on the importance of good nutrition during the *1,000 Days* between conception and a child’s second birthday to protect and promote a child’s short and long term health; lower the risk of infection, illness and mortality during infancy and childhood, and reduce the risk of intergenerational stunting and chronic disease later in life. Initiatives including the *1,000 Days Partnership* gained momentum, and the ‘lifecycle approach’ to improving nutrition during this period became the preferred approach. Graphic designers and web experts were engaged to develop a concept for the revised NCAT. Several iterations were developed and pre-tested, and a penultimate prototype has been agreed upon. This version, the interface of which is based on the *1,000 Days* lifecycle, showcases the international recommendations for nutrition at each stage of the lifecycle and provides links to international guidelines to support implementation and scale-up of nutrition programs including eLENA and WHO guidelines.

**Development of the Nutrition and Food Security (NFS) short course**

Throughout the development of the NCAT, consultation with key regional stakeholders identified that national nutritionists and others working in the area of nutrition and food security often lack prior training in nutrition and have limited capacity to reflect on best practice or to understand and recognise key intervention points for nutrition-specific and nutrition-sensitive interventions. Several stakeholders emphasised that the utility of the NCAT could be improved if complementary capacity building in nutrition and food security was made available to potential NCAT users.
Compass therefore commenced the development of the *Nutrition and Food Security – Approaches to improving the health of women and children* short course: a practical, evidence-based short course designed to enable nutrition stakeholders with limited prior nutrition training to identify, implement and advocate for effective, evidence-based approaches to improving nutrition and food security. The course is based on the *1,000 Days* lifecycle, and comprises four modules: a core module on *Nutrition planning and programming*, and three elective modules on *Nutrition for infants and young children*, *Nutrition for adolescent girls and women throughout the lifecycle* and *Food security for families and communities*. Each module utilises the knowledge assembled in the process of developing the NCAT, draws on best practice case studies from the field of international public health nutrition and is tailored to meet the specific needs of participants, allowing them to examine and critique country data, activities and programs from their own context.

The pilot delivery of this course to a group of nutritionists from Timor Leste and health and community workers from Indigenous communities in remote Australia was undertaken throughout 2011 and 2012. The delivery of the course has been valuable in determining the appropriate technical level, content and layout of the NCAT. Feedback from participants has consistently indicated that the inclusion of case studies in the course to reinforce technical content has been invaluable in consolidating learnings and strengthening participants’ understanding of the course materials. This has lead to the inclusion of case studies in the NCAT. The case studies provide examples of the best practice programmatic approaches that are aligned with the principles outlined in *Scaling Up Nutrition (SUN) strategy 2012-2015*. Examples of case studies include a breastfeeding promotion program in Cambodia and an anaemia prevention and control program in Myanmar.

Compass has commenced testing the NCAT internally and has used the NCAT to assist in undertaking a comprehensive review of the *Timor Leste Draft 2012 – 17 National Nutrition Strategy*, to assess unsolicited proposal submitted to AusAID; and in an external peer review of a Cochrane Systematic Review Protocol. The NCAT content and concept has been presented throughout the delivery of the *Nutrition and Food Security – Approaches to improving the health of women and children* short course pilot.

Broader testing of the NCAT will take place in May and June 2013, and the tool will be available in July 2013.

**References**

1. Compass was invited to participate in a WHO forum on the ways in which these Cochrane Reviews can be most beneficial to the nutrition community.
2. 1,000 Days Partnership, 1,000 Days. Available at: http://www.thousanddays.org/ [Accessed November 2012]

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