Technical Meeting on

Anaemia and Micronutrient Deficiencies in Refugee Populations

11th – 12th December 2012, Genève

Public Health and HIV Section, UNHCR

Introduction

Anaemia and micronutrient deficiencies continue to be a serious public health problem amongst refugee populations worldwide. UNHCR, WFP and implementing partners are working together to reduce anaemia and micronutrient deficiencies through the provision of improved food baskets; through timely identification and treatment of anaemia; through improved surveillance and programme targeting vulnerable groups; through integrated programmes and joint strategies; and through the introduction of specialised products designed to prevent micronutrient deficiencies.

Since 2008, UNHCR and WFP are partnering to address anaemia issues based on the UNHCR Strategic Plan for the Prevention and Treatment of Anaemia. Although prevalence of Anaemia is the main (and often only) indicator used in refugee settings it is believed to represent a proxy indicator for the presence of other micronutrient deficiencies, and hence the "Anaemia Strategy" is in fact also a micronutrient strategy. Initially seven key countries were targeted (Algeria, Bangladesh, Djibouti, Ethiopia, Kenya, Nepal and Yemen), but later up to 15 (Chad, Eritrea, Mauritania, Republic of Congo, Rwanda, South Sudan, Sudan, Uganda) countries have been included. Three years after the introduction of the "Anaemia Strategy" much has been accomplished, but also new areas and areas for improvement have been identified. To this end, UNHCR wish to update the current strategy and are seeking assistance and clarification from experts.

Objectives

- **To update and seek expert advice on UNHCR's progress in terms of controlling micronutrient malnutrition in refugee populations since 2008.**
- **To discuss the ENN/UCL review of UNHCR Anaemia Strategy and analysis of the use of special nutritional products in selected countries.**
- **To share updates on current operations research related to micronutrient malnutrition out of camp.**
- **To discuss key topics for revision and update of UNHCR Anaemia Strategy including nutrition, public health, reproductive health and food security interventions.**

Proceedings

Presentations were given as starting points for discussion on key areas relevant for the revision of the UNHCR Anaemia Strategy. Presentations included findings from the on-going Anaemia Strategy Review, on-going analysis of the impact of Nutributter® interventions in the Horn of Africa and Plumpy'Doz® intervention in Bangladesh, and a recent cash-versus-food intervention study in Niger. Presentations were also given on UNHCR's work related to the Anaemia Strategy within the sectors of nutrition, public health and reproductive health, as well as exploring urban sampling of refugees for nutrition surveys and interventions. Other presentations were given on specific topics such as CSB++ and on UNIMAP. UCL, ENN, WFP, MSF, Tufts University and UNHCR colleagues contributed to the presentations. The meeting concluded with ten key topics which were discussed more in detail, and issues and outcomes from this is presented below. UNHCR will be discussing in depth and will be considering further these key topics for the revision of the Anaemia Strategy in 2013.

Participants

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Key topics	Issues/ discussion	UNHCR to consider for 2013 update of Anaemia Strategy
1. Anaemia and age categories (SENS data presentation and interpretation)	– Special products and blanket feeding with fortified blended foods are often targeted at children aged 6-23 months. – Sample size from standard cross-sectional nutrition surveys are based on children aged 6-59 months: how large does the 6-59 months sample size need to be to disaggregate by age categories and obtain meaningful results? – May need to increase the sample size of 6-59 months and hence 6-23 months to achieve sensible confidence intervals for anaemia, GAM and stunting in some specific contexts. On one hand WHO classifies anaemia as being Hb < 11g/dl and on the other many studies showing the efficacy of products such as MNP have used a classification of anaemia at Hb<10 g/dl. This was based on two main reasons: 1) the studies were done in Africa and the evidence showing that people of African descent have a lower Hb as compared to Caucasians and 2) the available evidence pointing out that mild iron deficiency anaemia has little or no detrimental effects on different developmental outcomes in young children and that detrimental effects were only seen in several trials when Hb<10 compared to mild anaemia.The issue of which anaemia classification should be used as a target should be addressed.	– Recommended to show anaemia data for children 6-59 months and 6-23 months. Showing trends is enough and there is no need to statistically compare different age categories. – Calculate sample size in ENA for SMART based on anaemia instead of GAM if need to assess differences between years in children aged 6-23 months (the current SENS guidelines already provide recommendations for assessing differences in anaemia in children 6-59 months). – Consider increasing the sample size for assessing differences in GAM and stunting in children aged 6-23 months. – Review previous nutrition surveys for confidence intervals on anaemia data for children 6-23 months. Based on this information, UNHCR can re-assess methodology to follow when special products are used. – For anaemia classification (i.e. <10 g/dl and/or <11 g/dl) the group agreed that UNHCR should decide depending their own objectives.
2. How to produce evidence	– Tendency to look at effectiveness / impact without	– Integrate programme monitoring data with impact

(integrated approaches to control anaemia and micronutrient deficiencies) and use it to improve outcomes?	understanding programme monitoring. – Hard to prove evidence of impact / effectiveness of specific anaemia interventions in a refugee setting with multiple, integrated interventions to address anaemia, and where evaluation designs like cohorts or control / comparison groups are either not feasible or not ethically acceptable. – Gathering data from cross-sectional surveys is the most feasible.	evaluation. – Focus monitoring more on implementation. Measure delivery and activities in addition to outcomes like anaemia and malnutrition. – Focus on improving routine data collection on process (outcome and process monitoring indicators) and improve staff capacity through regular training / strengthen ability to monitor and to deliver. – Triangulate and compliment SENS data with qualitative data such as FGD to capture acceptability, behaviour, attitudes and knowledge.
3. Continuation / introduction of special products in refugee situations	– General food ration is not able to meet micronutrient needs of all population groups, children under two years of age and pregnant and lactating mothers are especially vulnerable / nutrient gaps exist. – Current evidence for MNP and LNS is based on children 6-35 months. – Consider burden on programmes: BSFP with MNP, LNS and FBF++ are labour intensive. – MNP less acceptable than LNS and blended foods. – Problems related to switching products within the same operation. – Continued collaboration between WFP and UNHCR to meet refugees' nutritional needs, including general food ration and choice of special product for BSFP.	– Recommended to include strict regulations on switching from one product to another. – Consider milling and fortification of grain on-site in certain settings. – Focus BSFP with special products (MNP, small and medium quantity LNS) for children 6-23 (6-36) months only as this is where current evidence on impact is available. [Except in areas where GAM levels are very high, where the target groups could be widened]. – Perform in-depth cost analysis of products and interventions. – Address double burden of malnutrition in certain contexts. – Objectives of why special products are used need to be clear.
4. Use of CSB+ and CSB++ for children in BSFP (issues with sharing, shelf life, packaging)	– Linkages and integration between the Operational Guidance on Special Products (BSFP) and the Selective Feeding Guidance.	– UNHCR to integrate CSB++ implementation from testing acceptability to monitoring into the Operational Guidance on Special Products in 2013.

	– Environmental implications from packaging and wastage of CSB++ sachets. – Possible confusion with the same product from different sources and targeted to various population groups (PLW, children of different age categories). – Issues with more sharing with CSB+/CSB++ than MNP and LNS, but mainly sharing with other children. – High rate of spoilage with CSB+ and contamination issues.	– Need to move away from absolute thresholds and consider context when choosing an intervention or product.
5. Longer term consequences of use of different products	– Double burden of malnutrition – obesity and underweight. – Interaction with breastmilk intake. – Changes in taste and food choices. – Metabolic profile changes. – Dental health. – Duration of use for different products.	– Operational research to find out more about the consequences of use of special products (including qualitative research): what are those questions? Define what UNCHR wants to find out.
6. How to improve compliance at household level (we measure it, we do BCC but how to make sure about actual compliance!)?	– For BCC and information sharing at camp level: Importance of good training of staff who are doing monitoring. – Learning from other behaviour change programmes, such as IYCF, chronic diseases (with symptomless problem, compliance less good). – Reward system for those complying with recommendations; how to measure and prove compliance truthfully? – Should the health workers providing services to the community be doing the monitoring at HH level (these workers can be seen as 'authority' figures)?	– Suggested to do research with a more anthropological approach in some settings. – Monitoring could include more qualitative approaches and not only quantitative questionnaire. – The OG is still new and no programme has yet used it from stage 1 to stage 6 – UNHCR to give some time to see if the improved guidance works in practice. – Start 'fresh' with products in new settings and roll out OG.

7. Cross-cutting PH: What more should we be doing? New opportunities for programme activities for anaemia control? Monitoring of anaemia control activities?	– Systematic anaemia testing with HemoCue is recommended for pregnant and lactating women in ANC, and should be strengthened. – Resources limited and much focus on nutrition. Investments to be done in the other areas. – Good progress made with malaria control and WASH monitoring.	– Anaemia strategy broad enough. No need for new interventions, but improving the quality of delivery and monitoring of current interventions. – Creating a link (in "twine"), where all anaemia related data could be looked at together (data from SENS, HIS and other sources). -As SENS is being rolled out and Module 6 on mosquito net coverage is used, monitor trends and indicators like ownership and utilisation of nets. Same for Module 5 on WASH indicators.
8. How to measure other causes of anaemia than iron-deficiency (refugee context; outside of SENS)?	– Assumption is that iron deficiency is a major cause of anaemia. – Extent of haemoglobinopathies? – Measuring anaemia in men (cf UNHCR Anaemia meeting in March 2009)	– Look at existing data from host population (e.g. MICS). – Look into prevalence of malaria and link to anaemia. – Consider measuring some Hb in a sample of men in certain circumstances to establish if there is likely to be significant amounts of haemoglobinopathies in that population. This could be done during a routine nutrition survey.
9. Urban refugees: Other potential methods for sampling refugees in urban settings? How to find refugees in need of micronutrient / nutritional assistance in urban context?	– Sampling strategy is needed for urban survey data collection, and for finding those in need of assistance. – Various strategies exist – very context specific, which to use and one standardised method will be difficult to pursue. Probability sampling: stratified sampling, adaptive cluster sampling. Non-probability sampling: snowball sampling, respondent-driven sampling, capture-mark-capture. – Sampling bias in refugee setting related to registration and definition of legal status: target only those registered with UNHCR or target all	– UNHCR to map out current urban settings where nutrition survey and nutrition programming is relevant. – Pilot SENS in an urban setting in 2013. – Based on lessons learned from this and others, develop a strategy to reach urban refugees for SENS and Anaemia Strategy programming.

	refugees? In most urban or out-of-camp settings many refugees are not registered with UNHCR. This can be because they do not see an advantage with being registered, or it can be due to fear of negative outcome of their status, e.g. not being allowed to stay. The latter can be vulnerable and in need of assistance. – If targeting only registered refugees, there might be sampling bias with registration status and who is identified and registered as what. – Urban refugees often live integrated with host community, so need to decide whether to include host community as well. – Other challenges: refusal; trust between interviewer and respondent; confidentiality of information.	
10. Should UNHCR use UNIMAP / Multimicronutrient preparations instead of iron-folate tablets in refugee settings for PLW?	– Objective is to increase intake of both micronutrients in general, and iron and folic acid specifically. – General food ration does not provide sufficient micronutrients for pregnant and lactating women. BSFP for PLW will become rarer in the future. – IFA tablets have low compliance, whereas UNIMAP or other micronutrient tablets seem to have better compliance and hence supplementation of latter could increase iron and folic acid intake more, despite lower content of iron in the tablets. – Refugee operations often use national protocols in ANC, and it can therefore be difficult for UNHCR to decide independently what intervention to go for.	– Follow-up on action point from UNIMAP consultation (July 2012). – Contact expert groups to get the different views. – Create linkages between nutrition and RH.
General comments	– UNHCR to specify better what the unique feature of refugee settings is; how is it different than out of camp settings?	

	– Clarify whether it is an anaemia strategy or a micronutrient strategy or both. – Set objectives and questions for future operations research. – Strengthen the quality of the data fed into HIS and other systems.

Annex 1: Agenda

Time	Content	Presenter	Moderator
Day 1			
8:30-9:00	Coffee & croissants		
9:00-9:15	Welcome and introduction	UNHCR, Schilperoord	Andresen
9:15-9:45	History of the UNHCR Anaemia Strategy, including summary of previous TAGs /TRGs in 2008 and 2009, with outcomes, achievements and outstanding issues	UNHCR, Oman	
9:45-10:15	Introduction to UNHCR Operational Guidance on the Use of Special Nutritional Products	UNHCR, Wilkinson	
10:15-10:45	Introduction to UNHCR SENS (Standardised Expanded Nutrition Survey) guidelines	UNHCR, Tondeur	
10:45-11:00	Coffee break		
11:00-13:00	The First Five Years of the Anaemia Strategy: Do we know about what works yet?	ENN/UCL	Wilkinson
13:00-14:00	Lunch		
14:00-15:45	Continued	ENN/UCL	Tondeur
15:45-16:00	Coffee break		
16:00-17:00	Continued	ENN/UCL	Kassim
17:00-17:30	Summary of Day 1	UNHCR, Wilkinson	
17:30	Reception Chateau de Penthes		
Day 2			
9:00-9:45	Cross-cutting public health issues concerning micronutrients, with discussion	UNHCR, Cornier and Das	Oman
9:45-10:45	Presentation on a feasible method for sampling of urban refugees, with discussion	Benelli, TuftsUniversity	
10:45-11:00	Coffee break		
11:00-12:00	Presentation on roll-out of improved fortified blended foods in refugee settings, with discussion	WFP, de Pee	Wilkinson
12:00-13:00	Presentation on MSF and WFP Maradi, Niger operations research in 7 villages using different products, food aid and/or cash, with discussion	Captier, MSF and de Pee, WFP	
13:00-14:00	Lunch		
14:00-15:00	Presentation on UNIMAP use during pregnancy, with discussion	UNHCR, Tondeur	Kassim
15:00-16:00	Key topics for updates of UNHCR Anaemia Strategy part 1	UNHCR, Oman	
16:00-16:20	Coffee break		
16:20-17:00	Key topics for updates of UNHCR Anaemia Strategy part 2	UNHCR, Wilkinson	Tondeur
17:00-17:30	Outcomes of technical meeting and next steps	UNHCR, Wilkinson	
17:30-17:45	Closing remarks	UNHCR, Spiegel	

Annex 2: List of documents pre meeting

- UNHCR Anaemia Strategic Plan for Anaemia Prevention, Control and Reduction: Reducing the Global Burden of Anaemia in Refugee Populations (2008-2010).
- UNHCR Operational Guidance on the Use of Special Nutritional Products to Reduce Micronutrient Deficiencies and Malnutrition in Refugee Populations.
- UNHCR Standardised Expanded Nutrition Survey (SENS) Guidelines (http://info.refugee-nutrition.net/).
- Health Information System (HIS)-Standards and Indicators Guide (January 2010).

Annex 3: Abbreviations

ANC	Ante-natal care
BCC	Behaviour Change Communication
BSFP	Blanket Supplementary Feeding
CDC	Centers for Disease Control and Prevention
CSB	Corn Soya Blend
ENA	Emergency Nutrition Assessment
ENN	Emergency Nutrition Network
FBF	Fortified Blended Food
FGD	Focus Group Discussion
GAIN	Global Alliance for Improved Nutrition
GAM	Global Acute Malnutrition
Hb	Haemoglobin
HIS	Health Information System
IFA	Iron and Folic Acid
iLiNS	The International Lipid-Based Nutrient Supplements Project
IYCF	Infant and Young Child Feeding
LNS	Lipid-based Nutrient Supplement
MI	Micronutrient Initiative
MNP	Micronutrient Powder
MSF	Médecins sans Frontières
OG	Operational Guidance
PH	Public Health
PLW	Pregnant and Lactating Women
SENS	Standardised Expanded Nutrition Survey
SMART	Standardized Monitoring and Assessment of Relief and Transitions
UCL	University College London
UNHCR	United Nations High Commissioner for Refugees
UNIMAP	UN Multiple Micronutrient Preparation
WFP	World Food Programme
WHO	World Health Organisation