

SCN Working Group on Micronutrients: Information Sharing Template for 2006 and Earlier Activities

Table 1: Demographic Information

Reporting Individual	Nasima Akhter, Sohana Shafique
Institution/Organization	Helen Keller International - Bangladesh
Contact address	nasima@hkidhaka.org (NA), sohana@hkidhaka.org (SS)
Position	Sr. Analysis and Reporting Officer (NA), Analysis and Reporting Officer (SS)
Department/Section	Analysis and Reporting Unit
Major focus of activities	Support to others, Research, Policy/Advocacy, Programming/Interventions

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Table 2: Measurement, assessment, monitoring and reporting micronutrient deficiencies

Geographic area(s) covered by this table	<ol style="list-style-type: none"> 1. Bangladesh: All six divisions of the country (NSP) 2. a. Northern riverine islands (<i>chars</i>) (HFPP) b. Chittagong Hill Tracts (HFPP) c. Southern coastal belt in Barisal Division (HFPP) 															
Project Name	<ol style="list-style-type: none"> 1. Nutritional Surveillance Project (NSP): Nationally and divisionally representative sample 2. Homestead Food Production Programme (HFPP) 															
Supporting Agencies	<ol style="list-style-type: none"> 1. The Royal Embassy of the Kingdom of the Netherlands 2. The Netherlands Organization for Development Cooperation (NOVIB), USAID via Save the Children, USA. 															
Approximate # of beneficiaries	<ol style="list-style-type: none"> 1. NSP collected information from 30,000 households in 2006. 2. HFPP covers 239,950 direct beneficiaries from 42,440 targeted households. 															
	Micronutrients															
	<table border="1" style="width: 100%; text-align: center;"> <tr> <td>Iodine</td> <td>Iron</td> <td>Folate</td> <td>Zinc</td> <td>Calcium</td> <td>Vit A</td> <td>Vit B-12</td> <td>Vit C</td> <td>Vit D</td> <td>Vit B-1</td> <td>Vit B-2</td> <td>Vit B-3</td> <td>Vit B-6</td> <td>Vit K</td> <td>Vit E</td> </tr> </table>	Iodine	Iron	Folate	Zinc	Calcium	Vit A	Vit B-12	Vit C	Vit D	Vit B-1	Vit B-2	Vit B-3	Vit B-6	Vit K	Vit E
Iodine	Iron	Folate	Zinc	Calcium	Vit A	Vit B-12	Vit C	Vit D	Vit B-1	Vit B-2	Vit B-3	Vit B-6	Vit K	Vit E		

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<u>Activities</u>																	
Prevalence Assessment		X			X	X											
<p>1. The NSP assesses the nightblindness prevalence of women of reproductive age and children aged 12-59mo (reporting of 18-59mo) every two months. Indicators are assessed since 1990.</p> <p>2. So far three National Anemia Surveys are conducted in 1997, 2001 and 2004. Prevalence of anemia (Hb concentration) among children less than five years, adolescents and women of reproductive age is assessed with Hemocue.</p> <p>3. A survey on rickets prevalence was conducted during 2004-05; no biochemical parameters were assayed. (Presumably, rickets in Bangladesh is due to calcium deficiency).</p> <p>4. Baseline surveys of the HFPP projects provide estimates of anemia prevalence among women and children in three nutritionally vulnerable regions of the country: Chittagong Hill tracts, <i>Chars</i>, and Southern coastal belt.</p>																	
Training/Capacity Building		X				X											
<p>Both programs of NSP and HFPP provides training on the assessment of micronutrient status (assessing Hb using Hemocue, 24-VASQ method for dietary VA intake estimate) to the data collection and quality control teams of partner NGOs and Government institutions e.g. Institute of Public Health Nutrition (IPHN).</p> <p>In 2006, HKI has provided training to two MPH students from University of Queensland, Australia on collecting data on dietary vitamin A intake using HKI 24-Vitamin A Semi Quantitative (VASQ) method and on analysis of such data. This method was also shared with Department of Human Nutrition, The Royal Veterinary and Agricultural University, Denmark to be used by students doing research on vitamin A intake in Bangladesh.</p>																	
Monitoring and Evaluation	X	X	X			X											
<p>1. As an independent monitoring of the bi-annual National Vitamin A Plus Campaign of the Government of Bangladesh, vitamin A capsule coverage among children aged 6-59 mo is assessed at divisional and national level through NSP. Postpartum vitamin A capsule coverage among women of reproductive age is also assessed routinely. Supplementation Iron/Folate tablets during pregnancy and the early post-partum is assessed regularly. Through NSP assessment of household's use of iodized salt is assessed periodically (latest in 2003).</p> <p>2. In the three HFPP programs, Vitamin A supplementation among under-five children and women is monitored at baseline and endline and occasionally in monitoring rounds (4/6 months interval). Consumption of Vitamin A among children and mothers is assessed through 24hr vitamin A semi quantitative (24-VASQ) method (at baseline and endline of the project). Iron/Folate supplementation during pregnancy and the early postpartum and vitamin A in post-partum period is assessed at baseline and endline. In HFPP presence of Iodine in the household salt is also tested with iodine testing kit at baseline and endline of HFPP data collection.</p>																	
Analysis and Reporting		X				X											
For both NSP and HFPP, analysis of data with regard to micronutrient deficiencies were conducted and shared with program partners, donors																	

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and other organizations in national and international seminars and conferences through annual reports, bulletins, abstracts and other publications. Vitamin A deficiency related information is regularly included in the WHO global database of Vitamin A deficiency. Some of the reports and abstract published in 2006 are listed below:

List of micronutrient-related publications of HKI/Bangladesh in 2006

Bulletins and reports:

1. HKI & IPHN (2006). *The burden of anemia in Rural Bangladesh: The need for urgent action*. Nutritional Surveillance Project Bulletin No 16. Dhaka HKI 2006.
2. HKI & IPHN (2006). *National vitamin A supplementation coverage: who are not reached and how can coverage be increased further?* Nutritional Surveillance Project Bulletin No 18. Dhaka HKI 2006.
3. HKI & IPHN (2006). Bangladesh in Facts and Figures: 2005 Annual Report of the Nutritional Surveillance Project. Dhaka HKI 2006.

Scientific Abstracts:

1. Akhter N, Stallkamp G, Chowdhury T, Panagides D, de Pee S (2006.). Poor coverage of micronutrient supplements among pregnant and post-partum women in Bangladesh. Book of Abstracts, 8th CAPGAN, Bangladesh, p-93.
2. Akhter N, Stallkamp G, Talukder A, Karim R, Uddin A, Habib A, Baten A, Nesa J and de Pee S (2006). Homestead food production program in Bangladesh plays important role in improving vitamin A intake among children and mothers. Book of Abstracts, Bioavailability 2006. Thailand, p-149.
3. Akhter N, Diekhans J, Halati S, Jinnatunnessa, de Pee S (2006). 24-VASQ method for assessing vitamin A intake, application in Indonesia, Bangladesh, Cambodia. Book of Abstracts, 4th ACD, Manila. Philippines, p 85-86.
4. Shafique S, Stallkamp G, Sari M, Witten C, de Pee S (2006). Low dietary diversity of complementary foods is associated with poor nutritional status and increased morbidity of Bangladeshi children. Book of Abstracts, 11th ASCODD, Thailand.
5. Stallkamp G, Karim R, Nesa J, Habib A, Baten A, Uddin A, Talukder A, Panagides D, de Pee S (2006). Homestead food production reduces the prevalence of anemia among non-pregnant women. Book of Abstracts, Bioavailability 2006. Thailand.

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Table 3: Food Fortification															
Supporting Agencies	Helen Keller International/ Bangladesh														
	Micronutrients														
	Iodine	Iron	Folate	Zinc	Calcium	Vit A	Vit B-12	Vit C	Vit D	Vit B-1	Vit B-2	Vit B-3	Vit B-6	Vit K	Vit E
<u>Activities</u>															
<i>Operational Research</i>		X	X	X		X		X							
With national and international stakeholders and interested organizations, a Micronutrient Interest Group (MIG) was formed, which HKI is one of the members to strengthen the initiatives of reducing micronutrient deficiency in Bangladesh.															

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Table 4: Vitamin and Mineral Supplementation

Geographic area(s) covered by this table	<ol style="list-style-type: none"> 1. Bangladesh: All six divisions of the country (NSP) 2. <ol style="list-style-type: none"> a. Northern riverine islands (<i>chars</i>) (HFPP) b. Chittagong Hill Tracts (HFPP) c. Southern coastal belt in Barisal Division (HFPP) 														
Project Name	<ol style="list-style-type: none"> 1. Nutritional Surveillance Project (NSP): Nationally and divisionally representative sample 2. Homestead Food Production Programme (HFPP) 														
Supporting Agencies	<ol style="list-style-type: none"> 1. The Royal Embassy of the Kingdom of the Netherlands 2. The Netherlands Organization for Development Cooperation (NOVIB), USAID via Save the Children, USA. 														
Approximate # of subjects or beneficiaries for each project described	<ol style="list-style-type: none"> 1. NSP collected information from 30,000 households in 2006 2. HFPP covers 239,950 direct beneficiaries from 42,440 targeted households. 														
	Micronutrients														
	Iodine	Iron	Folate	Zinc	Calcium	Vit A	Vit B-12	Vit C	Vit D	Vit B-1	Vit B-2	Vit B-3	Vit B-6	Vit K	Vit E
Activities															
Supplements Compliance Promotion		X	X			X									
<p>The HFPP has a nutrition education component that promotes utilization of available mechanisms of receiving vitamin A or Iron/Folate supplementation for young children and women.</p> <p>HKI has analyzed the NSP data to assess the characteristics of those who did not receive the vitamin A capsule in rural areas and shared the information as NSP bulletin 18 (mentioned above).</p>															
Supplementation Monitoring/Evaluation		X	X			X									
<p>Both projects of HKI/ Bangladesh (NSP routinely, HFPP at baseline and endline) assess the coverage of the bi-annual national vitamin A Plus campaign, which supplements children, aged 12-59mo with a Vitamin A capsule. Similarly, the supplementation coverage of children aged 6-11mo combined with measles vaccination and that of post-partum mothers within 6 weeks of delivery is assessed. Supplementation of Iron-Folate tablets during pregnancy and in the early postpartum period of mothers is also assessed quantitatively.</p>															

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Table 5: Dietary Diversity to Improve Micronutrient Nutrition

Geographic area(s) covered by this table	<ol style="list-style-type: none"> 1. Bangladesh: All six divisions of the country (NSP) 2. <ol style="list-style-type: none"> a. Northern riverine islands (<i>chars</i>) (HFPP) b. Chittagong Hill Tracts (HFPP) c. Southern coastal belt in Barisal Division (HFPP) 														
Project Name	<ol style="list-style-type: none"> 1. Nutritional Surveillance Project (NSP): Nationally and divisionally representative sample 2. Homestead Food Production Programme (HFPP) 														
Supporting Agencies	<ol style="list-style-type: none"> 1. The Royal Embassy of the Kingdom of the Netherlands 2. The Netherlands Organization for Development Cooperation (NOVIB), USAID via Save the Children, USA. 														
Approximate # of subjects or beneficiaries for each project described	<ol style="list-style-type: none"> 1. NSP collected information from 30,000 households in 2006. 2. HFPP covers 239,950 direct beneficiaries from 42,440 targeted households. 														
Micronutrients															
	Iodine	Iron	Folate	Zinc	Calcium	Vit A	Vit B-12	Vit C	Vit D	Vit B-1	Vit B-2	Vit B-3	Vit B-6	Vit K	Vit E
Activities															
<i>Dietary Policy and Advocacy</i>	X	X	X		X	X		X							
<p>The HFPP in its nutrition education component promotes the consumption of micronutrient rich vegetables, fruits and animal food products and provides information and practical training on nutrient preserving cooking techniques.</p> <p>Using the nationally representative data of NSP, dietary diversity of complementary foods of children aged 6-23 months was assessed using the Dietary Diversity Score method described by Arimond and Ruel (2004). Results of this analysis have been shared in national and international conferences.</p> <p>Recent HKI bulletin has demonstrated the impact of homestead food production through HFPP on improving dietary diversity in households living in vulnerable areas. The bulletin can be accessed through HKI website (www.hki.org).</p> <p>HKI (2006) Homestead food production- an effective integrated approach to improve food security among vulnerable char dwellers in northern Bangladesh. Homestead Food Production Program bulletin 4. Dhaka: Helen Keller International.</p>															
<i>Agricultural Initiatives</i>															
<i>Home Gardens</i>		X				X									
The HFPP teaches women of poor households how to set up home gardens that provide fruits and vegetables throughout the year with a															

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	constant presence of at least six different varieties. Special attention is paid to enable women and continue the activities beyond project support duration. Emphasis is given on vitamin A and iron rich foods.												
	<i>Agricultural Extension Activities</i>												
		X				X							
	HFPP conducts a series of training for women homestead food production groups on horticulture and animal husbandry, establishes Village Model Farms and group leader gardens as a demonstration plot. Also organizes exchange visits among the farmers' field sites. Emphasis is on Vitamin A and iron rich foods in special and micronutrient rich foods in general.												
	<i>Other areas using diet improvement to improve micronutrient nutrition</i>												
	The HFPP teaches women of poor households how to raise small scale poultry and livelihood (chickens, including improved breeds and ducks, goat) for consumption of eggs, meat and liver.												

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Table 7: Any other activities associated with each micronutrient(s)

Geographic area(s) covered by this table	Bangladesh: All six divisions of the country (NSP)														
Project Name	Nutritional Surveillance Project (NSP): Nationally and divisionally representative sample														
Supporting Agencies	The Royal Embassy of the Kingdom of the Netherlands Government of Bangladesh														
Approximate # of subjects or beneficiaries for each project described	NSP collected information from 30,000 households in 2006														
	Micronutrients														
	Iodine	Iron	Folate	Zinc	Calcium	Vit A	Vit B-12	Vit C	Vit D	Vit B-1	Vit B-2	Vit B-3	Vit B-6	Vit K	Vit E
Activities															
Research		X													
<p>Using National Anemia Survey 2004 data, analyses were carried out on determining the risk factors for anemia among school-enrolled and non-enrolled adolescent girls in rural Bangladesh. Abstract accepted for poster presentation in the Micronutrient Forum 2007, in Turkey. During January to May 2007, a cross-sectional study will be conducted to determine the prevalence of anemia among rural adolescent girls (age 13-19 y) in National Nutrition Programme (NNP) and non-NNP sites by following-up adolescents from the 2004 National Anemia Survey conducted by HKI and Institute of Public Health Nutrition. This study is a joint collaboration of HKI and The Gov't of Bangladesh.</p>															