

Consequences and Control of Micronutrient Deficiencies:

Science, Policy, and Programs – Defining the Issues

16 – 18 April 2007 ■ Istanbul, Turkey

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Welcome

On behalf of the conference organizers and sponsors, welcome to the Micronutrient Forum, “Consequences and Control of Micronutrient Deficiencies: Science, Policy, and Programs - Defining the Issues.” We are delighted that you are here to participate in this important event.

Your Hosts

The Micronutrient Forum is co-hosted by the Micronutrient Forum Program Committee and the Local Organizing Committee of the Turkish Ministry of Health, which includes representatives of United Nations technical agencies, multilateral agencies, universities, the private sector, and nongovernmental organizations in Turkey. The Local Organizing Committee serves in an advisory capacity to the Micronutrient Forum Secretariat, and provides other assistance for the meeting. The Micronutrient Forum Program Committee and the Micronutrient Forum Secretariat planned and organized the meeting with support from A2Z,[†] the U.S. Agency for International Development (USAID) Micronutrient and Child Blindness Project, with funds from USAID and with major contributions from the Bill & Melinda Gates Foundation, SIGHT AND LIFE, United Nations Children's Fund (UNICEF), Unilever Food and Health Research Institute, and Global Alliance for Improved Nutrition (GAIN). Numerous other organizations have also contributed to the planning of the meeting. The ILSI Research Foundation serves as the Micronutrient Forum Secretariat.

About the Micronutrient Forum

The Micronutrient Forum was established in 2006 in response to the growing interest in the role of multiple micronutrients and their interactions. The Micronutrient Forum consolidates and expands upon thirty years of successful leadership by the International Vitamin A Consultative Group (IVACG) and the International Nutritional Anemia Consultative Group (INACG). The Micronutrient Forum aims to serve as a stimulus for policy-relevant science and as the internationally recognized catalyst for moving the global community towards consensus around evidence-based policies and programs that reduce micronutrient deficiencies around the globe. The Micronutrient Forum focuses on micronutrient deficiencies of public health significance, particularly vitamin A, iron, folate, iodine, and zinc.



[†] A2Z is managed by the Academy for Educational Development (AED) through a cooperative agreement with the Health, Infectious Disease and Nutrition Office of the Bureau of Global Health, U.S. Agency for International Development.

Name Badges

You should have received your name badge when you picked up your meeting packet at the registration desk. Please wear your badge throughout the meeting. Your badge serves as your ticket for entrance to all meeting functions.



Meeting Sessions

All of the meeting's plenary sessions and poster sessions will take place at the Ceylan InterContinental Istanbul Hotel.

Interpretation

Simultaneous interpretation into Turkish has been arranged. Participants who require interpretation can pick up their headsets at the conference registration desk 30 minutes prior to the start of the session. The headsets must be returned to the conference registration desk at the end of each day.

Questions and Comments

Your questions and comments are welcome during the scheduled discussion periods. If you would like to ask a question or make a comment, please go to one of the microphones located in the aisles. After you are recognized by the session chair, please identify yourself and state your affiliation or organization before proceeding with your question or comment.

Consecutive interpretation will be available for Turkish-speaking participants who wish to ask a question or make a comment during scheduled discussion periods. The interpreter will accompany you to the microphone in the aisle and translate your question or comment at the microphone.

Posters

Posters will be on display in the Anadolu meeting room, one floor below the plenary room. Posters are arranged according to the numbers listed in this program. Presenters will be available to discuss their posters and answer questions during the scheduled poster sessions, and posters will also be available for viewing during the lunch break.

No Smoking, Please

Smoking is not permitted in the meeting rooms. We appreciate your cooperation.

Meals

Coffee and tea will be served during the scheduled breaks Monday through Wednesday. You are on your own for meals.

Abstracts

Copies of abstracts of oral and poster presentations are included in this book.

Registration Desk

Throughout the meeting, the registration desk will be open just prior to the morning sessions and will remain open until just after the afternoon sessions.

Hospitality Desk

Tour Select will have a designated hospitality desk near the conference registration area. Please stop by for information on dining and shopping in Istanbul, for flight reconfirmations, and to confirm arrangements and scheduled times for tours and airport transfers.

Message Board

Messages for participants will be posted on a message board near the registration area. Please check the board often to see if there is a message for you.

Transportation

You are on your own for any transportation you may need to travel between hotels, leave the hotels for meals, or travel about the city.

Evaluations

We value your opinion about this meeting! Please complete the evaluation form in your packet and leave it at the registration desk before 1800 on Wednesday, 18 April. Your feedback will help us plan the next Micronutrient Forum meeting.

And Finally...

We wish you a pleasant stay in Istanbul. We hope that this meeting will engender challenging discussions, strengthen ties among old and new colleagues alike, and provide you with new information and tools to use in your work.



PROGRAM AT A GLANCE

MICRONUTRIENT FORUM

All meeting sessions will take place at the Ceylan InterContinental Istanbul Hotel.

Sunday 15 April	1500 - 1830 Registration	1630 - 1830 Set up Monday's posters	1830 - 2000 GAIN Opening Reception
Monday, 16 April	Tuesday, 17 April		Wednesday, 18 April
0800 Registration/Major Sponsors Exhibits Open	0800 Registration/ All Exhibits Open	0800 Registration/ All Exhibits Open	0800 Registration/ All Exhibits Open
0900 - 1000 Inauguration	0830 - 1000 National Successes in Micronutrient Programming	0830 - 1000 Dietary Strategies <i>Biofortification</i> <i>Fortification</i>	
1000 - 1030 Status of Micronutrient Programs in Turkey	1000 - 1100 Poster Session and Break	1000 - 1100 Poster Session and Break	
1030 - 1130 Poster Session and Break	1100 - 1200 Tipping Point #1: Zinc and Childhood Mortality	1100 - 1140 Dietary Strategies (continued) <i>Fortification at Point-of-Use</i>	
1130 - 1145 Overview of the Micronutrient Forum			
1145 - 1230 Taking Stock: Physiologic Public Health Implications of Population-Based Deficiencies	1200 - 1230 Special Session: Cost Analysis as a Tool for Micronutrient Program Planning, Budgeting, Management, and Advocacy	1140 - 1230 Maternal Micronutrient Supplementation	
1230 - 1430 Lunch and Poster Viewing	1230 - 1400 Lunch and Poster Viewing	1230 - 1430 Lunch and Poster Viewing	
1430 - 1530 Taking Stock (continued)	1400 - 1510 Assessment and Evaluation	1430 - 1530 Micronutrients and Infection	
1530 - 1630 Poster Session and Break	1510 - 1600 Poster Session and Break	1530 - 1630 Poster Session and Break	
1630 - 1700 Taking Stock (continued)	1600 - 1640 Iodine Deficiency: An Update on Global Progress and Monitoring	1630 - 1715 Update on Zinc in the Treatment of Diarrhea	
1700 Meeting Adjourns Set up Tuesday's posters	1640 - 1740 Tipping Point #2: Newborn Dosing with High Dose Vitamin A	1715 - 1745 Concluding Remarks	
1830 Welcome Reception	1740 Meeting Adjourns Set up Wednesday's posters	1745 End of Micronutrient Forum's formal sessions	

Micronutrient Forum

16 - 18 April 2007

Sunday, 15 April 2007

- 1500 - 1830 Registration
1630 - 1830 Set up Monday's posters
1830 - 2000 GAIN Opening Reception

Monday, 16 April 2007

- 0800 Registration opens / Major Sponsors Exhibits Open
- 0900 Inauguration of the Micronutrient Forum**
Moderator: Dr. Alfred Sommer
-
- 1000 Poster Session and Break
-
- 1100 Status of Micronutrient Programs in Turkey**
Dr. M. Rifat Kose
- 1130 Overview of the Micronutrient Forum**
Dr. Alfred Sommer
- 1145 Taking Stock: Physiologic Public Health Implications of Population-Based Deficiencies**
Moderator: Dr. Ian Darnton-Hill*
Co-Moderator: Dr. Turgay Coskun
- 1145 Introduction
Dr. Bruno de Benoist
- 1200 Vitamin A
Dr. Keith P. West, Jr.
- 1215 Open Discussion
-
- 1230 Lunch
-
- 1430 Taking Stock: Physiologic Public Health Implications of Population-Based Deficiencies (continued)**
Moderator: Dr. Bruno de Benoist
Co-Moderator: Dr. Tanju Besler
- 1430 Iron
Dr. Rebecca Stoltzfus
- 1445 Open Discussion
- 1450 Zinc
Dr. Kenneth Brown
- 1505 Open Discussion



** Views expressed by the presenters and moderators do not necessarily reflect the views of the Micronutrient Forum or the International Life Sciences Institute Research Foundation.*

Monday, 16 April 2007 (continued)

1510 Iodine
Dr. Michael Zimmermann

1525 Open Discussion

1530 Poster Session and Break

1630 Taking Stock: Physiologic Public Health Implications of Population-Based Deficiencies (continued)

1630 Multiple Micronutrients
Dr. Lindsay Allen

1655 Open Discussion

1700 End of Monday's formal sessions
Remove Monday's posters
Set up Tuesday's posters

1830 Welcome Reception



Monday Posters

Posters on Child Development


- **M1** Changes in Somatic Growth and Pubertal Development After Correction of Severe Iodine Deficiency
Dr. A. Tsekouras
- M2** Effects of Iron Deficiency in Infancy on Social/Emotional Adjustment Over Time
Dr. Feyza Corapci
- M3** The Effect of Whole Maize Flour Iron Fortification on Mental and Motor Function of Kenyan School Children
Ms. Pauline Andang'o
- M4** Effect of Iron Therapy on Developmental Delays in Severely Anemic Children Aged 1 - 4 Years - A Prospective Case Control Study
Dr. Sunil Sazawal
- M5** Impact of Anemia and Iron Status on Cognitive Performance in School Children in Bangalore, India
Ms. Ans Eilander
- M6** Functional Benefits of Intermittent IFA Supplementation in Young School-going Adolescent Girls
Dr. Aditi Sen
- M7** Trial Using Multiple Micronutrient Food Supplement and Its Effect on Cognition in Children
Prof. Rajagopalan Srinivasa
- M8** Effect of Iron-Folic Acid and Zinc Supplementation on the Language Acquisition of Young Nepali Children
Dr. Emily Siegel
- M9** Development of Nutritionally At-risk Young Zanzibari Children is Predicted by Malaria, Anemia and Stunting
Ms. Deanna Olney
- M10** Micronutrient Supplementation During Infancy: Effects on Behavior and Development at 2-3 Years of Age
Prof. Maureen Black
- M11** Does Zinc Deficiency Play a Role in Stunting Among Primary School Children in NE Thailand?
Prof. Rosalind Gibson



*** Readers can use the codes next to presentation titles to locate abstracts of the presentations beginning on page 45.*

Monday Posters (continued)

Posters on Health Consequences of Micronutrient Deficiencies

- 
- M12** Relationship Between Iodine Nutrition and Thyroid Function
Dr. Radovan Bilek
- M13** Urinary Iodine Excretion in Pregnant Women and Their Outcomes
Dr. Eda Koksals
- M14** High Levels of GammaInterferon in Adolescents with Vitamin A Deficiency
Prof. Jorymar Leal
- M15** Serum Level of Vitamins and Relationship with Dietary Intakes in Women with Gestational Diabetes Mellitus
Dr. Hulya Gokmen Ozel
- M16** Pregnancy Outcome in Relation to Anemia, Nutrient Intakes, and Socioeconomic Status
Prof. Poonam Chandra Mittal
- M17** Hematological and Biochemical Profiles, Anthropometric Parameters, and Nutritional Status During Pregnancy and Effects on the Newborn
Dr. Eda Koksals
- M18** Hematological Values Are Normal and Unaffected by Vitamin B12 Supplementation in B12- Deficient Mexican Women
Ms. Setareh Shahab-Ferdows
- M19** Association of Hemoglobinopathies with Anemia in North Indian Children
Dr. Sunil Sazawal

Posters on Micronutrient-Micronutrient Interactions

- M20** The Effects of Iodine and/or Vitamin A Repletion in Rats with Concurrent Vitamin A and Iodine Deficiency
Mr. Ralf Biebinger
- M21** Vitamin A Supplementation in Children with Poor Vitamin A and Iron Status Increases Erythropoietin and Hemoglobin Concentrations without Changing Total Body Iron
Prof. Michael Zimmermann
- M22** The Role of Dietary Iron and Concurrent Nutrient Deficiencies in the Etiology of Anemia and Iron Deficiency in Young Women with Low Socioeconomic Status in Bangalore, India
Mr. Prashanth Thankachan
- M23** Effect of Combining Multiple Micronutrients with Iron Supplementation on Hemoglobin Response in Children and Pregnant Women: Systematic Reviews of Randomized Controlled Trials
Prof. Tarun Gera

Monday Posters (continued)

- M24** Impact of Iron/Folate versus Multi-micronutrient Supplementation During Pregnancy on Birth Weight: A Randomized Controlled Trial in Rural Western China
Ms. Lingxia Zeng
- M25** Impact of Weekly versus Daily Iron Supplementation on Serum Zinc Status of Lactating Women in Addis Ababa, Ethiopia
Dr. Jemal Haidar
- M26** Specific Micronutrient Fortification of Milk Including Zinc and Iron Significantly Improved Anemia, Iron Status, Growth, and Physical Activity among 1-4 Year Old Children in a Community Based, Double Masked, Randomized Trial
Ms. Usha Dhingra
- M27** Multi Macro-micronutrients Supplementation Improved Plasma Zinc and Reduced Anemia, as well as Minimized the Age-specific Pattern on Length Faltering and Gender-specific Pattern on Weight Faltering of Infants in West Nusa Tenggara, Indonesia
Ms. Lindawati Wibowo
- M28** Effect of Milk Fortification with Zinc, Iron, and Other Micronutrients on Serum Zinc Status in Mexican Toddlers 12-30 Months of Age
Mrs. Carmen Morales Ruán
- M29** Prenatal Multiple Micronutrient Supplementation Has a Better Effect on Birth Weight than Iron plus Folic Acid Supplementation: A Randomized Controlled Single Blind Programmatic Study in Rural Niger
Dr. Noël Marie Zagre
- M30** The Impact of Maternal Multiple Micronutrient Supplementation (MMN) on Infancy Growth
Dr. Sunawang Sunawang



Posters on the Science Base Needed for National Policy Formulation and Program Commitment

- M31** Situation Analysis of Iodine Availability for Policy Formulation
Prof. Yasar Tevfik Tuzun
- M32** Initial Severity of Night Blindness Modifies Response to Four Weekly Doses of 25,000 IU of Vitamin A in Night Blind Pregnant Women
Prof. Douglas Taren
- M33** How is Vitamin A Absorbed by the Intestine Upon Challenge with a Large Dose of Preformed Vitamin A?
Ms. Nuttaporn Wongsiriroj

Monday Posters (continued)

- M34** Provitamin A Carotenoids from Foods and Supplements Provide Vitamin A Based on Need and One Conversion Factor Does Not Fit All
Prof. Sherry Tanumihardjo
- M35** The Impact of Different Doses of Vitamin A Supplementation on Male and Female Mortality and Morbidity: A Randomized Study from Guinea-Bissau
Ms. Dorte Christoffersen
- M36** The Effect of High-Dose Vitamin A Supplementation Given with BCG Vaccine at Birth on the Immune Response to BCG Vaccine
Dr. Birgitte Diness
- M37** Effectiveness of the New IVACG Early High-Dose Vitamin A Supplementation Scheme Compared to the Standard World Health Organization (WHO) Protocol: A Randomised Controlled Trial in Gambian Mothers and Infants
Dr. Momodou K. Darboe
- M38** Evaluation of the Efficacy of Vitamin A Supplements Currently Administered to Infants Using a Piglet Model
Ms. Rebecca Surles
- M39** Reaching Infants with Vitamin A Supplementation at Six Months: The Neglected Recipients of a Twice-yearly Strategy
Dr. Emily Siegel
- M40** Acceptability of Home-Based Fortification of Family Meals in the Context of Emergency Micronutrient Programming in Darfur
Ms. Erin Tansey
- M41** Building Micronutrient Trial Research Capabilities in Rural Bangladesh: Organizing, Developing, and Implementing the JiVitA Project
Dr. Alain Labrique
- M42** Iron Intake and Bioavailability in India (1974-2001): Linking Agricultural Production and Micronutrient Malnutrition
Ms. Christina Nyhus
- M43** Outcome from UNICEF/WHO Global Meeting on the Prevention and Control of Iron Deficiency in Children in Nairobi 10-12 July 2006
Mr. Neal Paragas
- M44** Effects of Routine Iron Supplementation with or without Folic Acid for Women During Pregnancy: A Systematic Review
Dr. Juan Pablo Pena-Rosas
- M45** Zinc Status During Three trimesters of Pregnancy: Low and Low Middle Income Indian Family
Prof. Kasturi Sen Ray



Monday Posters (continued)

- M46** Parental Tobacco Use is Associated with Increased Risk of Malnutrition among Children in Indonesia and Bangladesh
Ms. Cora Best

Posters on Surveys

- M47** Iodine Status of Children Under 5, Their Mothers, and Pregnant Women in Nigeria by Agroecological Zone and Urbanization
Prof. Tunde Oguntona
- M48** Goiter Prevalence in Children Age 6 to 12 Years and Their Corresponding Biological Mothers Age 15 to 49 Years in Ethiopia
Prof. Yemane Berhane
- M49** The Prevalence of Iodine deficiency in the Vhembe District of Limpopo Province
Prof. Solomon Mabapa
- M50** Eliminating Iodine Deficiency in the Republic of Georgia: Results of a 2005 National Survey
Dr. Parminder Suchdev
- M51** The Philippines' Universal Salt Iodization Program and Iodine Status Among School Children, Pregnant and Lactating Women, 2003
Ms. Leah Perlas
- M52** Iron, Vitamin A, and Iodine Status in Oman: Results of a 2004 National Survey
Ms. Deena Alasfoor
- M53** Iron Deficiency Anemia and Iodine Deficiency in Afghanistan: Results of a 2004 National Survey
Dr. Shahm Mahmood Nasiri
- M54** Feasibility of Including Biochemical Indicators of Nutritional Status in a National Multiple Indicator Cluster Survey-A Case Study From The Lao PDR
Dr. Jacqueline Knowles
- M55** Vitamin A Deficiency is Endemic Among Beduins, the Jordanian Desert Inhabitants: An Urbanization Irony
Dr. Ibrahim Khatib
- M56** Results of a National Survey on Iron and Vitamin A Deficiency, Jordan 2002
Dr. Saad Karabsheh
- M57** Ethiopian National Vitamin A Survey Results: Clinical, Food Production and Consumption Aspects
Mr. Tsegaye Demissie



Monday Posters (continued)

- M58** Vitamin A Deficiency, Anemia, Nutritional Status, and Infection Rate Assessment in Malian Women and Children: A Heavier Burden for the Rural Population?
Dr. Amenatou Cisse
- M59** Anemia and Vitamin A Deficiency Among School Children in Burkina Faso
Mrs. Ann Tarini
- M60** Nutritional Status and Dietary Habits of School-Aged Children: Results from the National School Health and Nutrition Program Baseline Survey in Malawi
Ms. T. W. Banda
- M61** Micronutrient Deficiency Disorders among Children of West Bengal, India
Prof. Arlappa Nimmathota
- M62** Vitamin A Deficiency Trends and Determinants in the Philippines: 1993, 1998, and 2003
Ms. Leah Perlas
- M63** Disparities in the Nutritional Status of Filipino Preschool- and School-Age Children between Income Groups
Mrs. Ma. Adrienne Constantino
- M64** Predictors of Micronutrient Deficiencies among Preschool Children
Ms. Wilma Molano
- M65** Health and Nutritional Status of Acehnese Elementary School Children Post-Tsunami Period
Dr. Rosnani Pangaribuan
- M66** Co-existing Micronutrient Deficiencies among Stunted Cambodian Children
Dr. Susan Jack
- M67** Malnutrition and Micronutrient Deficiencies
Prof. Fatima-Zahra Squali
- M68** The Effect of Seasonal Changes on Serum Vitamin A and Zinc Levels in Sheep around Ankara Province
Dr. Atilla Beskaya
- M69** Serum Zinc and Vitamin A Status in Preschool Children in Selected Rural Areas of Ethiopia: A Preliminary Study
Dr. Melaku Umeta
- M70** Trends in the Prevalence and Predictors of Anemia among Women of Reproductive Age and Preschool Age Children in Latin America
Prof. Usha Ramakrishnan
- M71** Worldwide Estimates of Anemia Prevalence in Preschool Aged Children, Women, and Pregnant Women
Dr. Erin McLean



Monday Posters (continued)

- M72** Iron Deficiency Anemia Among Adolescent Boys and Girls in I.R. of Iran
Dr. Zahra Abdollahi
- M73** Iron Deficiency Anemia in College Students
Prof. Nevin Tekgul Sanlier
- M74** Iron Status of Reproductive Age Women in Ethiopia: Current Status
Dr. Melaku Umeta
- M75** Risk Factors for Anemia among Adolescent Girls in Rural Bangladesh: Conclusions from National Anemia Survey, 2004
Ms. Sohana Shafique
- M76** Prevalence of Anemia and Iron, Folic Acid, and Vitamin B-12 Deficiencies in Children of 11-18 Years of Age in India
Dr. Umesh Kapil
- M77** Iron, Folate, and Vitamin B12 Deficiencies among Different Age Groups of Females in Sri Lanka
Dr. Tharanga Thoradeniya
- M78** Dietary Intakes and Blood Folate, Vitamin B12, Zinc, and Copper Levels in Young
Ms. Nurcan Yabanci
- M79** Iron and Zinc Deficiency among 6 Year Old Iranian Children
Dr. Zahra Abdollahi
- M80** Inadequate Intakes of Dietary Zinc among Pregnant Women from Subsistence Households in Sidama, Southern Ethiopia
Dr. Yewelsew Abebe
- M81** Zinc Status of Young Children (6-24 months) from an Urban Resettlement of Delhi
Prof. Santosh Jain Passi
- M82** Anemia, Zinc Deficiency, and Malnutrition in Children Aged 6-36 Months: A Comparison of North Indian Urban and South Indian Rural Settings
Ms. Usha Dhingra
- M83** A Rapid Survey of Micronutrient Status of Pregnant Mothers and Infants in Rural Sindh (Pakistan)
Prof. Zulfiqar Bhutta
- M84** Micronutrient Deficiencies among Primary School Children in Vietnam
Dr. Nhien Nguyen Van
- M85** Daily Intake of Essential Trace Elements in the Netherlands: Results of a Duplicate Diet Study
Dr. Eugène Jansen
- M86** Iodine Status in Four States of India
Dr. Chandrakant S. Pandav



Tuesday, 17 April 2007

- 0800 Registration/ All Exhibits Open
- 0830 **National Successes in Micronutrient Programming**
Moderator: Dr. José Mora
Co-Moderator: Dr. Gulden Pekcan
- 0830 Overview
Dr. José Mora
- 0840 **T98** Nigeria's Universal Salt Iodization Program Success Story: The Process and Lessons Learned
Dr. Dora Akunyili
- 0848 **T99** Experiences in the Prevention, Control, and Elimination of Iodine Deficiency Disorders in Iran: A Success Story
Dr. Fereidoun Azizi
- 0856 **T100** Nicaragua's Integrated Anemia Control Strategy (IACS) Has Significantly Reduced Anemia in Women and Children
Dr. Erick Boy
- 0906 **T101** Vitamin A Supplementation for Child Survival in Niger: Maintaining Success in Adversity
Dr. Noel Marie Zagre
- 0914 **T102** The Challenge of Shifting from Vitamin A Supplementation (VAS) Campaign to Delivering a Package of Key Interventions during "Mother and Child Health Weeks"
Dr. Simon Rakatonirina
- 0922 **T103** The Experience of the Nepal Vitamin A Program: A Platform for Scaling-up Community-Based Health Interventions
Dr. Ram Shrestha
- 0932 Common Elements of Successful Programs
Dr. Phil Harvey
- 0940 Open Discussion
-
- 1000 Poster Session and Break
-
- 1100 **Tipping point #1: Zinc and Childhood Mortality**
Moderator: Dr. Olivier Fontaine
Co-Moderator: Dr. Kadriye Yurdakok
- 1100 **T104** Effects of Zinc Supplementation on Mortality in Children 1-48 Months of Age: A Community-Based Randomized Placebo-Controlled Trial
Dr. Sunil Sazawal
- 1115 **T105** Impact of Daily Zinc Supplementation on Preschool Child Mortality in Southern Nepal
Dr. James Tielsch



Tuesday, 17 April 2007 (continued)

- 1125 Comments
 Dr. Juan Rivera
- 1135 Open Discussion
- 1200 **T107** **Special Session: Cost Analysis as a Tool for Micronutrient Program Planning, Budgeting, Management, and Advocacy**
 Dr. Jack Fiedler
-
- 1230 Lunch
-
- 1400 **Assessment and Evaluation**
 Moderator: Dr. Frank Wieringa
 Co-Moderator: Dr. Peyami Cinas
- 1400 Introduction
 Dr. Frank Wieringa
- 1405 **T108** Assessment of Iodine Status Using Dried Blood Spot Thyroglobulin: Development of Reference Material and Establishment of an International Reference Range in Iodine-Sufficient Children
 Dr. Michael Zimmermann
- 1415 **T109** Recommendations for the Assessment of Population Zinc Status: Results of a WHO, UNICEF, IAEA, and IZiNCG Working Group Meeting
 Dr. Christine Hotz
- 1425 **T110** Nicaragua's Integrated System for Monitoring of Nutritional Interventions (SIVIN): An Analysis of the First Three Years of Implementation
 Dr. Ivette Sandino
- 1435 **T111** Vitamin A and Other Major Micronutrient Deficiencies in China
 Prof. Xiaoguang Yang
- 1445 Six-monthly Augmented Vitamin A Supplementation from 1 to 6 Years of Age: Block Randomized Trial in One Million Children in Northern India
 Dr. Shally Awasthi
- 1455 Open Discussion
-
- 1510 Poster Session and Break
-



Tuesday, 17 April 2007 (continued)

- 1600 **Iodine Deficiency: An Update on Global Progress and Monitoring**
 Moderator: Dr. Dora Akunyili
 Co-Moderator: Dr. Murat Erdogan
- 1600 New WHO Recommendations for the Prevention and Control of Iodine
 Deficiency in Pregnant and Lactating Women and in Children Less Than
 Two Years Old
 Dr. Bruno de Benoist
- 1610 **T112** Global Progress towards Sustained Elimination of Iodine Deficiency:
 Lessons from Salt Iodization Programs and Monitoring
 Dr. Nune Mangasaryan
- 1620 **T113** Assessment of Household Use of Adequately Iodized Salt in Population
 Surveys is Best Achieved by a Combination of Testing by Rapid Salt Test
 Kits and Quantitative Methods
 Dr. Karen Codling
- 1630 Open Discussion
- 1640 **Tipping point #2: Newborn Dosing with High Dose Vitamin A**
 Moderator: Dr. Shyam Thapa
 Co-Moderator: Dr. Yildiz Perk
- 1640 **T114** Effect of 50,000 IU Vitamin A Given to Newborns and Infants in Guinea-
 Bissau, West Africa
 Dr. Christine Stabell Benn
- 1655 **T115** Efficacy of Newborn Vitamin A Supplementation in Reducing Infant
 Mortality in Rural Bangladesh: The JiVitA-2 Trial
 Dr. Rolf Klemm
- 1710 **T116** Newborn Vitamin A Dosing: Policy Implications for Southern Asia and
 Africa
 Dr. Keith P. West, Jr.
- 1725 Open Discussion
- 1740 End of Tuesday's formal sessions
 Remove Tuesday's posters
 Set up Wednesday's posters



Tuesday Posters

Posters on Programs

- T1** Improving National Vitamin A Supplementation Program Monitoring: Conclusions of an Informal Consultation of the Global Vitamin A Alliance, New York, 19-20 July 2006
Ms. Nita Dalmiya
- T2** Building Host Country Support for Vitamin A Supplementation Programs
Ms. Nita Dalmiya
- T3** Vitamin A Supplementation: Can We Assume for Stakeholders to be Once Committed, Always Committed? The Mali Experience
Dr. Samake Racky Bah
- T4** To Improve Populations' Vitamin A Status and Reduce Poverty: Challenges of the Red Palm Oil Project In Burkina Faso
Mr. Karim Bougma
- T5** Promotion of Liver in the Control of Vitamin A Deficiency in Rural Burkina Faso: Lessons Learned and Perspective
Dr. Constance Nana
- T6** Impact of Coupling Vitamin A Supplementation with Deworming into Immunization Activities in the Republic of Congo
Ms. Odette Bandenga
- T7** Integrating Two Public Health Interventions in the Democratic Republic of the Congo: Vitamin A Supplementation and Community-Based Treatment with Ivermectine (CDTI)
Dr. Julia Moorman
- T8** Cost Analysis of the National Twice-Yearly Vitamin A Supplementation Program in Tanzania
Dr. Generose Mulokozi
- T9** Low-Dose Vitamin A Capsules Treatment of Night Blind Pregnant Women in Nepal
Prof. Pragya Mathema
- T10** Treatment of Night Blind Pregnant Women with Low Dose Vitamin A Capsules: A Comparison between Clinic and Home-Based Treatment Programs
Prof. Douglas Taren



Tuesday Posters (continued)

- T11** Evaluation of a Pilot Program for Postpartum Vitamin A Supplementation in Three Districts in Indonesia
Ms. Elviyanti Martini
- T12** Vitamin A and Iron Status in Mexican Children Less Than 3 Years of Age in Urban Areas with and without the Oportunidades Program
Mr. Armando Garcia-Guerra
- T13** Coupling Deworming and Vitamin A Supplementation: National-Level Success in Senegal
Dr. Valerie Q. Ndiaye
- T14** Improved Micronutrient Status of School-Age Children Following the Introduction of School Health and Nutrition Interventions in Ethiopia
Prof. Tamiru Kassa
- T15** Community-Driven Comprehensive Anemia Control Program Can Reduce Anemia and Improve Overall Health and Nutrition Status
Dr. Deborah Ash
- T16** “Nutri-Candy” Increases Participation in Integrated Child Development Services in Bihar, India
Mrs. Sujata Chaturvedi
- T17** An Evaluation of an Innovative Approach to Vitamin A Supplementation in Jharkhand, India
Dr. Ame Stormer
- T18** Establishing a Monitoring System for Micronutrient Programs in a Decentralized Health System in the Philippines through a Technical Assistance Package
Dr. Edward Tandingan
- T19** Large Multi-country Integrated Micronutrient Interventions Contribute to Achieving Global Nutrition and Health Targets
Ms. Kendra Siekmans
- T20** Effect of Drinking Water Fortification with Iron and Vitamin C Program in Nutritional Status and Reducing Anemia in Children in Day Care Centers of Belo Horizonte City, Brazil
Prof. Joel Lamounier
- T21** The Challenge of Having Integrated Delivery Processes for Each of the Anemia Control Strategies Available, Accessible, and Functioning in Mali
Dr. Sidy Traore




Tuesday Posters (continued)

- T22** Growing Healthy Babies: A Positive Deviant Approach to Pregnancy in the Republic of Guinea
Dr. Lanfia Toure
- T23** Effectiveness of a Large-Scale Multiple-Sector Program to Reduce Anemia in Ghanaian and Malawian Women
Dr. Carolyn McDonald
- T24** Predictors of Child Growth Outcomes from Agricultural, Environmental, Health, and Nutritional Interventions in Ethiopia, Ghana, Malawi, and Tanzania (MICAH)
Ms. Barbara Main
- T25** Anemia Prevention and Control Program Impact Evaluation in Uzbekistan, 2005
Prof. Shamil Tazhibayev
- T26** Adolescent Anemia Programs in India: Review of Impact and Cost
Ms. Archana Dwivedi
- T27** Launching a Community-Based Anemia Program for Scale-Up in the State of Jharkhand, India
Dr. Manju Shukla
- T28** An Innovative Training Strategy to Increase the Quality of an Anemia Program in Jharkhand, India
Mr. Ram Shrestha
- T29** Iron-Folic Acid Supplementation Coverage Increased but Pregnancy Anemia Prevalence Unchanged by CARE India's INHP-II Program in Andhra Pradesh and Uttar Pradesh States, India
Dr. Michele Dreyfuss
- T30** Large-Scale Impact on Anemia Among Elementary School Children through Comprehensive Intervention and Systematic Government Partnership in Indonesia
Mr. Marco Savio
- T31** Improving Micronutrient Deficiencies at Scale in Madagascar Using the Essential Nutrition Actions Approach
Dr. Agnes Guyon
- T32** India Micronutrient National Investment Plan: Facilitating Effectiveness and Sustainability in Meeting National Needs
Mr. Luc Laviolette



Tuesday Posters (continued)

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- T33** Community-Based Integrated Interventions Improve Coverage of and Compliance with Iron Supplementation in Nepali Women
Mrs. S. Pandey
- T34** Effect of Prenatal Supplementation and Exclusive Breast Feeding Counselling on Infant Folate Status: The MINIMat Study, Bangladesh
Prof. Hanna Eneroth
- T35** Micronutrient Supplementation During Emergency Relief and Recovery
Mrs. Siti Halati
- T36** Community Delivery of Zinc: Achieving Scale, Quality, and Compliance in Post-conflict Countries
Ms. Katharine Haxall
- T37** Investing in Community-Based Health Providers: An Examination of the Empowerment Process in Uganda
Dr. Jessica Jitta
- T38** National Plan of Action for the Control of Micronutrient Malnutrition in Pakistan: A Strategy Document of the Ministry of Health, Government of Pakistan
Dr. Noor Ahmad Khan
- T39** Participation and Empowerment in Community-Based Approaches to Nutrition: A Critical Evaluation of Key Issues
Dr. Alizon Draper

Posters on Assessment and Evaluation

- T40** Iodine Intake and Urine Excretion in Premature Babies Born Less Than 30 Weeks of Gestation: High Risk of Iodine Deficiency
Prof. Susana Ares
- T41** Urinary Iodine Concentration in Schoolchildren and Pregnant Women After the Legislative Changes in the Salt Iodization
Dr. Mihaela Simescu
- T42** Goitre and Iodine Status of Schoolchildren from a Previously Endemic Goitrous Area in South Africa: A Reassessment After 9 Years of Mandatory Salt Iodization
Dr. Martha van Stuijvenberg
- T43** Assessment of Iodized Salt Consumption and Iodine Deficiency Disorders
Mr. Badar Uzaman

Tuesday Posters (continued)

- T43** Assessment of Iodized Salt Consumption and Iodine Deficiency Disorders
Mr. Badar Uzaman
- T44** Evaluation of Vitamin A Supplementation Regimens in Ghanaian Postpartum Mothers Using the Modified-Relative-Dose-Response Test
Mr. Samuel Tchum
- T45** Application of 3,4-Didehydroretinol in the Modified Relative Dose-Response Test and as a Vitamin A Tracer During Lactation in a Sow Model
Ms. Rebecca Surles
- T46** Utility and Validity of the Night Vision Threshold Test in Rural Nepalese Health Posts to Screen Pregnant Women for Night Blindness
Prof. Douglas Taren
- T47** Self-Report of Night Blindness Symptoms and Pupillary Threshold Accurately Identified Vitamin A-Deficient Schoolchildren in Rural Iran
Prof. Fereydoun Siassi
- T48** National Survey of Vitamin A Deficiency among Preschoolers in Burundi Using the Dried Blood Spot Method and the Prevalence of Night Blindness
Dr. June Pierre-Louis
- T49** Validation of Collection and Elution Procedures for Measurements of Retinol-Binding Protein in Dried Blood Spot Specimens
Ms. Eleanor Brindle
- T50** Collection, Processing, Storage, and Transport of Dried Blood Spot Samples for the Assessment of Vitamin A Deficiency in the Uganda Demographic and Health Survey
Prof. Dean Garrett
- T51** Recovery of Proteins in Dried Blood Spots Used for the Measurement of the Vitamin A, Iron, and Infectious Status - Test of Different Environmental Conditions
Dr. Juergen Erhardt
- T52** A Rapid Method for Measuring Serum Retinol Using High-Performance Liquid Chromatography (HPLC) and Ultraviolet (UV) Detection
Prof. Rosemary Schleicher
- T53** Indicators of Vitamin A Deficiency and Status of Intervention Programs: Results of a National Survey, Afghanistan 2004
Ms. Fitsum Assefa



Tuesday Posters (continued)

- T54** Field-Appropriate Assessment of Vitamin A Deficiency in Low-Resource Settings Using Retinol-Binding Protein: Use of Capillary Blood and Criteria for Classification
Prof. Jonathan Gorstein
- T55** School-Based Survey for Assessing District Coverage and Sources of Iodized Salt: An Efficient and Effective Methodology for Generating Data for Program Management
Dr. Bounthom Phengdy
- T56** Malnutrition in a Land of Plenty
Dr. Cameron Grant
- T57** Vitamin A in Dried Blood Spots: Update on HPLC Method Changes to Measure Retinol
Dr. Neal Craft
- T58** Using Acute-Phase Proteins to Correct Plasma Ferritin Concentrations in Apparently-Healthy Adults Living with AIDS
Prof. David Thurnham
- T59** Hemoglobin Adjustments to Define Anemia
Prof. Kevin Sullivan
- T60** Evaluation of Palmar Pallor, Pica, and Parasitic Infestation as Screening Tools for Iron Deficiency Anemia Among 1 Year Old Schoolchildren
Dr. Hassan Abd Elwahed
- T61** Defining the Zinc Status of Low-income Children in a Major U.S. Metropolitan Area
Dr. Conrad Cole
- T62** Zinc Nutritional Status, Body Composition, and Physical Activity in Chilean Overweight Preschool Children
Dr. Carlos Castillo-Duran
- T63** Use of Serum Zinc Concentration as an Indicator of Population Zinc Status
Dr. Sonja Hess
- T64** Effects of Delayed Processing and Freezing on Serum Analyte Concentrations for Selected Nutritional Indicators
Dr. Bakary Drammeh
- T65** Are Food Variety and Dietary Diversity Scores in Children Good Indicators of Micronutrient Adequacy in South African Children?
Dr. Nelia Steyn



Tuesday Posters (continued)

- T66** Development of a Toolkit and a Manual for Use in the Assessment of Vitamin and Mineral Status of Populations
Ms. Katie Tripp
- T67** Vitamin K Deficiency Bleeding Disorders in Early Infancy in Rural Bangladesh
Dr. Mahbubur Rashid

Posters on Communications

- T68** How to Convince a Person to Procure and Consume Packed Iodized Salt for Only Three Cents: Nepal's Experience
Prof. Pragma Mathema
- T69** Children: Powerful Agents of Change - Child-Focused Nutrition Education in Afghanistan
Dr. Ahmad Soheil Saadat Azami
- T70** Use of Mass Media is Important for Reaching the Hard-to-Reach for Vitamin A Supplementation in Zimbabwe
Ms. Thokozile Ncube
- T71** Vitamin A Awareness Program at Carpet Factories in Kathmandu, Nepal
Mr. Mahendra Chalise
- T72** The Effect of Child-to-Child Health Education Program and Micronutrient Supplementation in Iron-Deficient Anemic Children
Dr. Hassan Abd Elwahed
- T73** Social Marketing Pilot Project of a Diarrhea Treatment Kit in Cambodia
Mr. Borima Chann



Posters on Coverage

- T74** Connecting the Data of Salt Iodine and Urinary Iodine in Populations Improves Universal Salt Iodization/Iodine Deficiency Disorders Monitoring and Allows Advocacy on Optimal Mandatory Salt Iodization
Prof. Victor Kravchenko
- T75** Vitamin A Supplement Coverage: Using Post-event Coverage Surveys and Other Methods to Examine Coverage and Strengthen Vitamin A Supplement Programs
Dr. Robin Houston
- T76** Integrated Child Health Packages: A Model Strategy for Increasing Vitamin A Supplementation Coverage and Accelerating Progress in Child Survival
Ms. Amanda Palmer

Tuesday Posters (continued)

- T77** The Effect of Vitamin A Supplementation within Infant Vaccination Strategies on Vitamin A Status and Morbidity in El Salvador, Central America: A Randomized Trial
Dr. J. Antonio Quiros
- T78** Operations Research and Constraints Assessment of “The Vitamin A Supplementation Program Cycle” Increased Program Coverage Nationally in Guatemala
Dr. Erick Boy
- T79** Analysis and Action in West and Central Africa: Using Surveys to Improve Vitamin A Supplementation Performance
Dr. Justine Kavle
- T80** Ensuring Twice-Yearly Vitamin A Supplementation in Senegal: Assessment Validates High Coverage
Dr. Djibril Cissé
- T81** First National Micronutrient Week in Sierra Leone
Mrs. Sylvetta Scott
- T82** Rapid Assessment of Vitamin A Supplementation Coverage During Mass Campaign in Burkina Faso
Mr. Sylvestre Tapsoba
- T83** Reaching Infants with Vitamin A Supplementation at Six Months: A Strategic Partnership with the Immunization Program in Niger
Dr. Amina Yaya
- T84** Multi-strategies for Vitamin A Supplementation Post NIDs: The Case of Cameroon
Mr. Martin Nakap
- T85** Validating Vitamin A Supplement Campaign Results in the Democratic Republic of the Congo
Prof. Claire Sita
- T86** Assessment of Vitamin A Supplementation Coverage In Nigeria
Dr. Musa Obadiah
- T87** Achieving High Vitamin A Supplementation Coverage in Zimbabwe: What Works?
Mrs. Margaret Nyandoro
- T88** India's Vitamin A Supplementation Program Reaches the Ever-Largest Number of Children in a Single Country
Dr. Sangeeta Saxena



Tuesday Posters (continued)

- T89** Vitamin A Supplementation Program is an Effective Entry Point for Addressing Malnutrition in Uttar Pradesh, India
Dr. Sheila Chander Vir
- T90** Barriers to High Coverage of Vitamin A Supplementation and Prenatal Iron-Folic Acid Supplementation: A Comparative Profile of Selected Districts of Eastern UP and Jharkhand
Mr. Suneel Kumar Muttoo
- T91** Vitamin A Capsule Distribution Program among Children Aged 12-59 Months in Bangladesh: Who Are Missed?
Ms. Nasima Akhter
- T92** Tackling Vitamin A Deficiency in Cambodia: On the Road to National Coverage
Mr. Aminuzzaman Talukder
- T93** Vitamin A Capsule Program Coverage and Health Disparities among Preschool Children in Rural and Urban Indonesia
Ms. Sarah Berger
- T94** National Vitamin A Supplementation Program and Subclinical Vitamin A Deficiency in 12-59 Month-Old Children in the Philippines, 2003
Dr. Maria Regina Pedro
- T95** Utilizing the Integrated Management of Childhood Illness (IMCI) Strategy for an Increased Vitamin A Supplement Coverage for High-Risk Children in Lanao Sur, ARMM, Philippines
Ms. Eva Puertollano
- T96** Increasing Coverage and Sustainability by Partnering with Local Government and Parents and Integrating Multi-micronutrient Supplementation with Early Child Development and School Health and Nutrition in the Philippines
Dr. Amado Parawan
- T97** Coverage of Iron Supplementation among Schoolchildren in Egypt
Dr. Nagwa Elashry



Wednesday, 18 April 2007

- 0800 Registration/All Exhibits Open
- 0830 **Dietary Strategies**
Moderator: Dr. Emorn Wasantwisut
Co-Moderator: Dr. Aziz Eksi
- 0830 Overview
Dr. Emorn Wasantwisut
- 0845 **Biofortification**
- 0845 **W112** Increased Vitamin A Intake and Serum Retinol Status Among Young Children in Rural Mozambique Achievable through Introduction of Orange-Fleshed Sweet Potatoes Linked to Nutrition Intervention Programs Based on Group Sessions
Dr. Jan Low
- 0855 **Fortification**
- 0855 **W113** Application of NaFeEDTA Fortified Soy Sauce in Controlling Iron Deficiency in China
Dr. Junshi Chen
- 0905 Efficacy and Effectiveness of Iron in Complementary Foods, Rice, and Wheat Flour
Dr. Richard Hurrell
- 0915 **W114** Searching for Indicators for Designing and Assessing Impact of Folic Acid Fortification on Neural Tube Defects Reduction
Dr. Omar Dary
- 0925 **W115** Opportunities and Challenges for Commercial Food Fortification: A West African Example
Dr. France Begin
- 0935 Open Discussion
-
- 1000 Poster Session and Break
-
- 1100 **Fortification at Point-of-Use**
Moderator: Mr. Brian Thompson
Co-Moderator: Gulbin Gokcay
- 1100 **W116** Sprinkles for Reducing Micronutrient Deficiencies Among Children in Indonesia, Impact and Large - Scale Program Implementation
Dr. Saskia de Pee



Wednesday, 18 April 2007 (continued)

- 1110 **W117** Micronutrient Sprinkles Reduce Anemia Among Children When Delivered Through an Integrated Maternal and Child Health and Nutrition (MCHN) Program in Rural Haiti
Dr. Purnima Menon
- 1120 **W118** Efficacy of a Fortified Complementary Food, Sprinkles, and a Micronutrient Syrup to Prevent Anemia in Children Under Two Years of Age in Urban Mexico
Dr. Lynnette Neufeld
- 1130 Open Discussion
- 1140 **Maternal Micronutrient Supplementation**
Moderator: Dr. Lindsay Allen
Co-Moderator: Dr. Ferit Saracoglu
- 1140 **W119** The Effect of Maternal Multiple Micronutrient Supplementation on Fetal Loss and Infant Death in Indonesia: A Double-Blind Cluster Randomized Trial
Dr. Anuraj Shankar
- 1150 **W120** Impact of Postpartum Vitamin A Supplementation on Sexual Acquisition of HIV during the Postpartum Year among Vitamin A Deficient Women in Zimbabwe
Dr. Jean Humphrey
- 1200 **W121** Effects of Maternal Vitamin A or Beta-Carotene Supplementation on Maternal and Infant Mortality in Rural Bangladesh: The JiVitA-1 Trial
Dr. Parul Christian
- 1210 Consultation on Maternal Micronutrients
Dr. Barrie Margetts
- 1220 Open Discussion
-
- 1230 Lunch
-
- 1430 **Micronutrients and Infection**
Moderator: Dr. Marjoleine Dijkhuizen
Co-Moderator: Dr. Bahattin Tunc
- 1430 Nutrients and Infection
Dr. Charles Stephensen
- 1445 **W122** Conclusions of Iron-Malaria Workshop
Dr. Sean Lynch



Wednesday, 18 April 2007 (continued)

- 1500 Report from Young Investigator Workshop: Defining Research Priorities for Anemia Control in Malarious Areas
Dr. Sharon Cox
- 1515 Open Discussion
-
- 1530 Poster Session and Break
-
- 1630 **Update on Zinc in the Treatment of Diarrhea**
Moderator: Prof. Eng Huot
Co-Moderator: Dr. Songul Yalcin
- 1630 Results of Effectiveness Study of Zinc in the Treatment of Diarrhea in Pakistan
Dr. Zulfiqar Bhutta
- 1640 **W123** Scaling up Programs Including Zinc in the Treatment of Diarrhea
Dr. Robert Black
- 1655 **W124** Placebo-Controlled, Dose-Response Trial to Assess the Efficacy of Zinc Supplementation, with or without Copper, on Plasma Zinc Concentrations, Morbidity, and Growth of Young Ecuadorian Children
Ms. Sara Wuehler
- 1700 Open Discussion
- 1715 **Concluding Remarks**
Moderator: Dr. Alfred Sommer
- 1715 Closing Address
Dr. Meera Shekar
- 1745 End of Micronutrient Forum's formal sessions
Remove Wednesday posters
Remove exhibits



Wednesday Posters

Posters on Dietary Diversification

- W1** Breast Milk is the Best Source for Iodine Nutrition for the Newborn Baby
Prof. Susana Ares
- W2** Breastfeeding and Iodine Supply in Humans of a Severe Iodine-Deficient Area Before and After Iodine Supplement
Dr. Jean Vanderpas
- W3** Provitamin A Carotenoids Content of Dried, Fermented Cassava Roots: Influence of Food Addition
Prof. Adelaide Demasse Mawamba
- W4** Traditional Food Systems for Alleviating Micronutrient Deficiency and Noncommunicable Disease in Pohnpei, Micronesia
Prof. Lois Englberger
- W5** Bioavailability of Carotenoids in Mangoes and Pawpaw Consumed in Three Forms (Juice, Fresh, and Dry Slice)
Dr. Inocent Gouado
- W6** Efficacy of Red Palm Oil to Alleviate Vitamin A Deficiency in a Pakistani Population
Mr. Taufiq Ahmad
- W7** Assessment of Retinol Equivalent Content of Burkinabe Food (Western Area)
Mrs. Marcelline T. Ouedraogo
- W8** Carotene-Rich Plant Foods Ingested with Minimal Dietary Fat Enhance the Total-Body Vitamin A Pool Size in Filipino Schoolchildren as Assessed by Stable-Isotope-Dilution Methodology
Prof. Judy Ribaya-Mercado
- W9** Retinol Concentration in Breast Milk of Lactating Turkish Mothers Under Various Socioeconomic Conditions
Dr. Nermin Tansug
- W10** Evaluation of the Indigenous Leafy Vegetable Supplementation for Ghanaian Postpartum Mothers Using Modified Relative Dose-Response Test
Mr. Samuel Tchum
- W11** Association between Vitamin A- and Iron-Rich Foods and Micronutrient Status of Preschool Children in the Philippines
Dr. Corazon Barba
- W12** Effect of Beta-Carotene-Rich Drumstick Leaves (*Moringa oliefera*) and Lemon Juice Supplementation on Hematological Indices of Young Girls (16-21 Years) from Urban Vadodara
Dr. Vanisha Nambiar



Wednesday Posters (continued)

- W13** Food-Based Strategy to Improve Iron Status of Pregnant Women in Nigeria
Prof. Ngozi Nnam
- W14** Effect of *Moringa oleifera* Leaf Juice on Iron, Vitamin A, and Zinc Status of 6-12 Month Old Infants in Nigeria
Prof. Ngozi Nnam
- W15** Homestead Food Production Improves Micronutrient Status in Mothers and Young Children In Bangladesh
Ms. Gudrun Stallkamp
- W16** Exclusive Breastfeeding and the Risk of Anemia: A Preliminary Report
Dr. Sevilay Nadir
- W17** Prevention and Control of Iron Deficiency Anemia by Maintaining, Promoting, and Supporting of Breastfeeding
Dr. Sema Ozbas
- W18** Homestead Food Production Reduces the Prevalence of Anemia Among Non-pregnant Women and Children in Asia (Bangladesh, Nepal, and Cambodia).
Mr. Aminuzzaman Talukder
- W19** Iron Absorption from Brown Rice and Brown Rice-Based Meal
Dr. Trinidad Trinidad
- W20** Iron Absorption: Comparison of Prediction Equations and Reality-Results from a Feeding Trial in the Philippines
Dr. John Beard
- W21** Iron Bioavailability from Maize and Beans: A Comparison of Human and Caco-2 Cell Measurements
Prof. Janet R Hunt
- W22** Micronutrient Intake Recommendations are Not Achievable, for 9-11 Month Old Rural and Urban Indonesian Infants, Using Locally Available Foods Alone
Dr. Umi Fahmida
- W23** Animal-Origin Foods for Combating Mineral Deficiencies
Dr. Bhaskarachary Kandlakunta
- W24** Effect of Iron Status, Dietary Enhancers, and Inhibitors of Iron Absorption on Iron Bioavailability in Young Indian Women
Dr. Sumithra Muthayya
- W25** Functional Foods as Sources of Micronutrients in Human Diet, Health, and Disease Prevention
Dr. Ahmet Metin Kumlay



Wednesday Posters (continued)

- W26** Macronutrient/Micronutrient Contribution from Mid-day Meals: A Study in MCD/NDMC Schools of Delhi
Prof. Santosh Jain Passi
- W27** Nutritional Status of Nursing Mothers with Special Emphasis on Quantity and Quality of Maternal Diet versus Breast Milk Nutrients During 0-6 Months of Lactation
Prof. Santosh Jain Passi

Posters on Biofortification

- W28** Promotion and Dissemination of High Beta-Carotene Sweetpotatoes as Part of the Food-Based Approaches to Combat Vitamin A Deficiency in Sub-Saharan Africa
Dr. Regina Kapinga
- W29** Quantitative Determinations of Vitamin A Value of Golden Rice Given as Single or Multiple Meals
Dr. Guangwen Tang
- W30** Biofortification: An Agricultural Micronutrient Intervention - Its Potential Impact and Cost-Effectiveness
Dr. Alexander Stein
- W31** The Golden Rice Project
Prof. Ingo Potrykus
- W32** Genetic Engineering of Plants to Improve Micronutrient Contents of Food
Dr. Ahmet Metin Kumlay
- W33** Development and Utilization of High-Mineral Beans in Combination with Quality Protein Maize as a Nutritional Intervention in Southwestern Colombia
Dr. Matthew Blair
- W34** Isolation and Characterization of *Lotus japonicus* Genes Involved in Iron and Zinc Homeostasis
Prof. Cristina Cvitanich

Posters on Food Fortification

- W35** Population Living in the Red Sea Coast of Sudan May Need Urgent Intervention to Correct the Excess Dietary Iodine Intake in Schoolchildren
Prof. M. A. Crawford
- W36** Ionization of the Salt Program to Eliminate Iodine Deficiency Disorders
Dr. Sema Ozbas
- W37** Situational Analysis on Status and Production of Iodized Salt in Pakistan
Dr. M. Ayub Rose



Wednesday Posters (continued)

- W38** Iodine Nutrition Status Indicators in Pregnant Women of Rajasthan Indicate the Need to Assure Universal Salt Iodization and to Raise the Mandatory Iodine Level
Dr. Eric A. Ategbo
- W39** Status and Progress towards Elimination of Iodine Deficiency Disorders in India
Dr. Chandrakant S. Pandav
- W40** Success of the Iodization Program in Sri Lanka
Dr. Renuka Jayatissa
- W41** Changes in the Physico-Chemical, Microbiological, and Sensory Quality of Selected Processed Food Products Seasoned with Iodized Salt: The Philippine Experience
Prof. Mario Capanzana
- W42** A Multicentric Community Study on the Efficacy of Double-Fortified Salt
Dr. Malavika VinodKumar
- W43** Global Success Stories and Milestones in Oil Fortification in Developing Countries
Dr. Varghese Abraham
- W44** Vegetable Oil Fortification in Bolivia: From a Corporate Social Responsibility Action to a Mandatory Measure
Dr. Erick Boy
- W45** Nutritional Blindness and Its Association with Sugar Fortification and Vitamin A Supplementation in Guatemala: Retrospective Study of Hospital Cases from 1980 to 2000
Dr. Erick Boy
- W46** Do Frying and Cooking Affect Vitamin A Stability in Fortified Vegetable Oil in Morocco?
Prof. Lamyae Borghos
- W47** Stability of Vitamin A in Cooking Oil under the Utilization Conditions in Côte d'Ivoire
Prof. Patrice Bosso
- W48** Sugar Sample Analysis: Determination of Vitamin A in Household Sugar Samples
Prof. Margaret Sakala Mazhamo
- W49** Compensation of Vitamin A and D Losses During Processing of Dairy Products through Fortification
Prof. Artemis Karali



Wednesday Posters (continued)

- W50** Synthesis, Characterization, and Bioavailability in Rats of Ferric Phosphate Nanoparticles
Mr. Fabian Rohner
- W51** A Comparison of Methods for Predicting the Bioavailability of Elemental Iron Food Fortificants
Dr. Sean Lynch
- W52** Drinking Water Iron Fortification for the Prevention of Anemia at the Community Level
Prof. Jose Eduardo Dutra-de-Oliveira
- W53** Experience with Ferrous Bis-Glycine Chelate as an Iron Fortificant in Milk
Prof. Abdulaziz Alothaimeen
- W54** The Efficacy of Micronutrient Fortification of Milk on Morbidity in Preschool Children and Growth
Mr. Nkengafac A. David
- W55** FerricSodium EDTA (Ferrazone®): A Safe and Effective Iron Source for Infants 6 to 24 Months of Age
Dr. Carel Wreesmann
- W56** Consuming Flour of High Nutrient-Energy Density Improved Micronutrient Status and Growth of Children 7-9 Months of Age in the Northern Mountainous Area of Vietnam
Dr. Huong Cao
- W57** Effectiveness of Gluconate and Ferrous Sulphate Added to an Infant Food to Reduce Iron Deficiency in Mexican Children 12 to 30 months of age
Prof. Teresa Shamah Levy
- W58** Community-Level Micronutrient Fortification of a Food Supplement in India: a Controlled Trial with Preschool Children Aged 36-66 Months
Dr. Jessica Varma
- W59** Daily Consumption of Fish Sauce with Selected Iron Fortificants Improves Iron Status of Anemic Schoolchildren in Rural Cambodia
Prof. Yukiko Nakanishi
- W60** Consumption of Rice Fortified with Selected Iron Fortificants Reduces Anemia Prevalence Among Schoolchildren
Dr. Imelda Angeles-Agdeppa
- W61** Efficacy of Iron Fortification versus Iron Supplementation on Iron Status of Anemic Senegalese Children Just Recovered from Severe Malnutrition
Mr. Christian Tendeng
- W62** Regular Consumption of Micronutrient-Fortified Biscuits Improves Anemia and Iron Status of Schoolchildren Living in Rural Vietnam
Dr. Jacques Berger



Wednesday Posters (continued)

- W63** Comparison of the Effects of Zinc Delivered in Either a Fortified Food or a Liquid Supplement on the Growth, Morbidity, and Plasma Zinc Concentrations of Young Peruvian Children
Prof. Kenneth Brown
- W64** Iron Formula Ultra Rice Improves the Iron Status of Women in Mexico
Dr. Christine Hotz
- W65** The Impact of a Micronutrient-Fortified Beverage on Iron Deficiency, Anemia, and Hemoglobin Concentration of Pregnant Women in North Cameroon
Mr. Nkengafac A. David
- W66** Soy Sauce Fortification with NaFeEDTA in Indonesia: Impacts on Anemia Prevalence at Relatively Low Intake Levels
Mrs. Mayang Sari
- W67** Fermentation and Lactic Acid Addition Enhance Iron Bioavailability of Maize
Dr. Manju Reddy
- W68** Comparison of the Efficacy of NaFeEDTA, Ferrous Fumarate, and Electrolytic Iron as Fortificants in Brown Bread in South Africa
Dr. Martha van Stuijvenberg
- W69** Mid-term Evaluation of Flour Fortification in Iran
Dr. Robabeh Sheikholeslam
- W70** Impact of Flour Fortification: Lessons from Oman
Mr. Ibrahim Parvanta
- W71** Community-Based Small Scale Fortification in Rural Tanzania
Dr. Anatoli Rugaimukam
- W72** Comparative Acceptability Studies on Roller-Milled Wheat Flour Fortified with Three Different Iron Fortificants in Pakistan
Mr. Fazal Mahmood
- W73** Community-Based Fortification: An Innovative Way to Deliver Iron and other Micronutrients to Rural People in Nepal
Mr. Macha Raja Maharjan
- W74** Fortified Flour Improving Nutrition Condition (China's Experience)
Prof. Xiaomeng Ma
- W75** Technical Determination of Standards for Mass-fortification of Foods and Premixes
Dr. Omar Dary

Posters on Fortification at Point-of-Use

- W76** Stability and Safety of Handspray Iodization
Dr. Umi Fahmida



Wednesday Posters (continued)

- W77** Putting Iodine and Other Micronutrient Deficiencies on the Policy Agenda in Humanitarian Emergencies and Beyond: An Example from Darfur, Sudan
Prof. Andrew Thorne-Lyman
- W78** Efficacy of Foods Fortified with Iron and Consumed by Children as Part of the Family Health Program in a Southeastern Brazilian Urban Region
Dr. Mark Beinler
- W79** Home-Fortification of Complementary Foods with Powdered Vitamins and Minerals (Sprinkles) for Infants: From Research to Programs
Prof. Stanley Zlotkin
- W80** Results of a Sprinkles™ Intervention to Control Anemia In Pakistani and Afghan Infants
Dr. Emel Khan
- W81** Feasibility and Acceptability of Community-Based Fortification and Home Fortification in Rural Mali
Dr. France Begin
- W82** Prevention of Iron and Zinc Deficiency: Evaluation of Compliance with a Home-Based Fortification Approach Among 6-24 Month Old Children
Dr. Sunil Sazawal



Posters on Micronutrients and Infection

- W83** Effects of Maternal Beta-Carotene or Vitamin A Supplementation on Antioxidant Status During Pregnancy in Bangladesh: The JiVitA-1 Trial
Mr. Abu Ahmed Shamim
- W84** Influence of Sub-clinical Inflammation on Plasma Beta-Carotene Concentrations Before and After Beta-Carotene Supplementation
Prof. David Thurnham
- W85** Vitamin A Deficiency, Measles, and Utilization of Immunization Services as a Channel for Vitamin A Supplementation
Dr. F. Nur Aksakal
- W86** Randomized Controlled Trial Assessing the Impact of Vitamin A Supplementation on the Serological Responses to Hepatitis B and Haemophilus Influenza type B Vaccines Among Young Infants in Ghana.
Dr. Sam Newton
- W87** Topical Treatment of the Vaginal Mucosa with Vitamin A to Reduce Vertical HIV Transmission
Prof. H.K. Biesalski
- W88** Urinary alpha-1-Acid Glycoprotein (AGP) as a Biomaker of Acute Respiratory Infection-Induced Inflammation
Dr. Francisco Rosales

Wednesday Posters (continued)

- W89** The Effect of Vitamin A and Zinc Supplementation on Sputum Conversion of Pulmonary Tuberculosis Patients in Yogyakarta, Indonesia
Prof. Hamam Hadi
- W90** Impact of National Vitamin A Supplementation Program Combined with Daily Zinc Distribution on Malaria Morbidity among Young Children in Burkina Faso
Dr. Agustin Zeba
- W91** The Prevalence of Iron Deficiency with and without Concurrent Anemia in Population Groups with Malaria and Other Infections
Dr. Ajua Anthony
- W92** Malaria-Associated Anemia on Bioko Island, Equatorial Guinea
Dr. Luis Benavente
- W93** Preventing Malaria and Anemia During Pregnancy: Intermittent Preventative Treatment on Bioko Island, Equatorial Guinea
Ms. Josephine Czechowicz
- W94** Relationship of Hepcidin with Anemia and Parasitemia among Patients with Acute, Uncomplicated Plasmodium Falciparum Malaria in Ghana
Ms. Caitlin Howard
- W95** Incidence of Tuberculosis Mortality among Tuberculosis Cases and Overall Mortality Are Strongly Predicted by Elevated Iron Status in a Large HIV-1/HIV-2 Seroprevalent Clinic-Based Cohort in West Africa
Dr. Joann McDermid
- W96** Haptoglobin Genotype, Hemoglobin, and Malaria in Gambian Children
Dr. Sharon Cox
- W97** Iron Status, Anemia, and HIV Disease Progression among Tanzanian Women
Dr. Roland Kupka
- W98** Serum Ferritin is Associated with HIV Disease Severity and Mortality among Postpartum Women in Zimbabwe
Mr. Rahul Rawat
- W99** Alpha-1-acid Glycoprotein (AGP) Reveals the Influence of the Acute-Phase Response on Iron Status Indicators among HIV-Positive Postpartum Zimbabwean women
Mr. Rahul Rawat
- W100** Effect of Micronutrients and Iron on Anemia and Plasma Hepatitis C and HIV Load in Female Injection Drug Users: A Controlled Clinical Trial
Prof. Richard Semba



Wednesday Posters (continued)

- W101** Iron-Folic Acid Supplementation Does Not Affect the Outcome of Malaria Episodes Treated with Sulphadoxine-Pyrimethamine (SP)
Dr. Sunil Sazawal
- W102** Improvement of Iron Status and Gastric Acid Output with Anti-*Helicobacter pylori* (Hp) Therapy in Hp-Infected Reproductive Women with Hypochlorhydria and Iron Deficiency Anemia
Dr. Shafiqul Sarker
- W103** Relationship between *Helicobacter pylori* Infection and Iron, Copper, and Zinc Nutritional Status in Children
Mrs. Mariana Janjetic
- W104** Host Inflammatory Responses Modify Treatment Effect of Zinc in Severe Pneumonia
Prof. Christian Coles
- W105** Acute-Phase Protein Levels, *T.trichuria*, and Maternal Education Are Predictors of Serum Zinc in a Cross-Sectional Study in Bangladeshi Children
Mr. M A Wahed
- W106** Hair Zinc Status within the Network of Micronutrients and Mycotoxins in Children with Infection and Protein Energy Malnutrition
Prof. Metin Donma
- W107** Zinc Supplementation Shortens the Duration of Respiratory Signs in Children with Pneumonia
Prof. Mahmoud El-Mougi
- W108** Comparison of Serum and Colostrum Zinc among HIV / AIDS Positive and Negative Pregnant and Breastfeeding Mothers in Kenya
Dr. Anselimo Makokha
- W109** Impact of Micronutrients on Anemia among HIV-Positive and HIV-Negative Adults with Pulmonary Tuberculosis in Malawi: A Controlled Clinical Trial
Ms. Margaret Dayhoff-Brannigan
- W110** Impact of Micronutrient Supplementation on Mortality of HIV-Infected Adults with Pulmonary Tuberculosis in Malawi: A Randomized Controlled Clinical Trial
Ms. Justine Beck
- W111** Integrated Micronutrient Malnutrition and Infection Control Project for Reducing the Prevalence of Low Birth Weight in Tanzania
Dr. Simon Tatala



ORGANIZERS

The Micronutrient Forum is co-hosted by the Micronutrient Forum Program Committee and the Local Organizing Committee of the Turkish Ministry of Health. These groups include representatives of United Nations technical agencies, multilateral agencies, universities, the private sector, and nongovernmental organizations. The Office of Health, Infectious Disease and Nutrition, Global Health Bureau, U.S. Agency for International Development, and the Turkish Ministry of Health assumed major responsibility for organizing the meeting.



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