

**WORKSHOP ON CHILDREN'S HEALTH AND THE ENVIRONMENT**  
**EXAMINATION FOR REGISTERED PARTICIPANTS**  
**INTERNATIONAL PEDIATRIC ASSOCIATION (IPA)**  
**WORLD HEALTH ORGANIZATION (WHO)**

**Athens, Greece**

**August 25, 2007**

1. The International Pediatric Association (IPA), and the World Health Organization (WHO) organized a Workshop on Children's Health and the Environment in Athens, Greece immediately before the 25<sup>th</sup> International Congress of Pediatrics. This event was supported by a grant from the U.S. Environmental Protection Agency (EPA), with partial support from the American Academy of Pediatrics, the IPA and WHO. The workshop was held at the Athens Hilton Hotel on August 25, 2007. Participants were a group of 24 health professionals from Argentina, Bangladesh, Benin, Cyprus, India, Ivory Coast, Kazakhstan, Kenya, Uganda, the United Kingdom, the United States of America, and Zambia.
2. This workshop responds to recommendations made by the Bangkok Statement (March 2002) and further ratified by the Buenos Aires declaration (November 2005) and statements made in Nairobi (2004) and New Dehli (2006) that urge WHO and its partners to promote the recognition, assessment and study of environmental factors that have an impact on the health and development of children, and to promote children's environmental health training and the use of the pediatric environmental history. The List of Participants is under Annex I, the agenda under Annex II, and the list of Diplomates under Annex III.
3. The workshop enabled participants to achieve the following learning objectives:
  - Identify risks to children from environmental threats, especially air and water pollution, endocrine disrupters and climate change.
  - Recognize, diagnose, prevent and manage adverse effects linked to these environmental risk factors.
  - Describe why children may be at increased risk of adverse health outcomes and developmental consequence from environmental exposures to chemical, physical and biological agents.
  - Identify the specific vulnerability of the fetus, the child and adolescent and recognized the need for "life-stage approach" to evaluation of environmental hazards.
4. Dr. Ruth Etzel, Chair of the Committee on Environmental Health of the IPA welcomed participants on behalf of Dr. Jane Schaller, Executive Director of the IPA, and Dr. Jenny Pronczuk (WHO/HQ) did so on behalf of WHO.
5. Selected modules of the WHO Training Package for Health Care Providers (HCP) were adapted and used for the workshop: Why Children; Children are Not Little Adults; Air Pollution; Endocrine Disrupters (and Persistent Organic Pollutants); and Climate Change. Dr. Jenny Pronczuk used the HCP modules for a presentation on Why are Children Uniquely Vulnerable to Environmental Contaminants? Dr. Swati Bhawe used the WHO modules on indoor and outdoor air pollution to present a talk on the Respiratory Health Effects of Pollution.
6. Dr. Stella Canna-Michaelidou, Senior Chemist and Head of the Section of Environmental Chemistry, Ecotoxicology, Pesticide Residues and Radioactivity at the State General Laboratory, Ministry of

Health, Nicosia, Cyprus, presented a talk on endocrine disruptors and briefly reviewed the recent developments in the European Union Pilot Biomonitoring project developed under the Expert Team to Support Biomonitoring in Europe (ESBIO), which focuses on children and women of childbearing age. Pediatricians will have an important role in the process of implementation and communication of this project.

7. Dr. Cliff O'Callahan, Chair of the Section on International Child Health of the American Academy of Pediatrics, presented a talk on Climate Change, based on the draft WHO module. He also provided information about the International Community Access to Child Health (I-CATCH) Program. Participants were encouraged to apply for funding for their projects. The next submission cycle will begin on March 1, 2008.
8. These presentations were followed by questions and answers and participants were able to discuss their experiences, present observations and propose new ideas for promoting Children's Health and the Environment. Great interest was raised about the possibility of collaborative research and training.
9. The following case studies were presented by the participants:

Child Strangulation – Dr Abhijeet Saha (Chandigarh, India) described a type of injury characteristic of regions of India where rocking cradles are used and also a case linked to children's games. The clinical aspects were analyzed and proposed actions presented: a prospective 1 year study and messages for mothers and child-minders. He also described 4 severe cases of poisoning in small children that occurred in the last 3 months from iron pills. He stressed the need for advocacy and action.

Safe Dagoretti for Children – Drs. David Githanga and Fred Were (Nairobi, Kenya) presented data on pollution linked to slaughterhouses and open market waste and the need to intervene in order to protect children's health. A network was set up with the Kenya Pediatric Association, community groups and the Rotary Club and funding requested to UNEP and local organizations in order to promote cessation of pollution, as solutions are available.

Reducing Risk Factors for Respiratory Tract Illness and Asthma – Dr Sabyasachi Som (West Bengal, India) presented his experience in getting involved in the Health Camp that a local non-governmental organization (NGO) organizes with children from poor villages. The area is characterized by heavy air pollution both indoors (biomass fuels, e.g., kachha wood, green leaves, cow dung cakes; tobacco smoke) and outdoors (rice mill). Dr Som presented some of the key messages delivered to mothers and families, as well as the children. The idea of proposing that mothers cook outside does not seem to be acceptable.

Project on Education for CEH – Dr. Adelou Kakpossi (Cotonou, Benin) presented illicit petrol trade and children involved in this activity. He worked to convince parents that children should not be involved. This involved meeting with families and community. They now have more children informed about the adverse effects of petrol trade. A film was produced and shown repeatedly on the local TV station.

Indoor Air Pollution – Dr. Edison Mworosi (Kampala, Uganda) prepared an educational programme for children on indoor air pollution; it was aired on the local radio station. In about 6 months there will be an evaluation of the impact of the activity.

Prevalence of Anemia in preschool children attending anganwaris of a rural area of Punjab and the impact of supplementation with twice weekly iron – Dr. Praveen Sobti (Ludhiana, India) presented information on the impact of anemia in India (about 94% of the tribal school children have iron deficiency in Rajasthan). Three groups of children were studied. An "angan" is a courtyard and "anganwari" workers are health educators selected from the community who take care of the children and could be trained to collect information, record clinical data and educate children on personal hygiene and nutrition. Blood and stools will be monitored regularly and iron administration (and mebendazole, as necessary) initiated. Paper forms will be used to record the data.

Impact of behavioral modification on prevalence of ARI among children (birth to 3 yrs) in an

urban slum – Dr. Vinod H. Ratageri (Karnataka, India) planned a prospective study of simple behavioral measures to reduce ARI. Medical students worked with 96 homes (116 children) that made a detailed survey of air pollution and behaviors followed by education events for the community and follow-up of the results in the homes recruited. Messages were: keep child away from stove; use lids on pots; cook outdoors; keep door and windows open; avoid smoking inside the homes. The study is on-going and results will be available in the near future. The proforma used were presented, as well as images of the study area, team involved and the community.

Prevalence of wheezing and respirable particulate matter – Dr. Sampada Tambolkar (Nagar, Pune, India) designed a study of 95 children living and going to a school close to stone quarries. The objectives included the study of the exposed children and identification of practical remedial measures. X-rays need to be done as the dust is silica...

Assessment of the environmental hazards of the day care centres in Chandigarh in different contextual settings – Dr. Bhavneet Bharti (Chandigarh, India) explored the feasibility of a study on “crèches”. They found out that overcrowding, mould in walls, poor ventilation, shallow hand pumps, bad quality toys and other risk factor. The governor and other authorities were informed and actions were taken.

Cord Blood Lead Levels and Child Behavior – Dr. Archana Patel (Nagpur, India) based her study on the recent information that suggests that the blood lead level (BLL) of concern should be lowered to 5 micrograms per deciliter. Psychometric studies and BLL were evaluated on 230 children. Measurements of head circumference, BLL, maturity and birth weight related to motor functions, reflexes, and autonomic functions. Finding is that abnormal Babinski sign and walking reflexes can identify neonates with risk of high BLL. Could lead exposure be linked to high prevalence of anemia in children?

Children’s Environmental Health in Argentina – Dr. Ana Speranza (Buenos Aires, Argentina) presented the activities of a programme under Maternal and Child health at the Ministry of Health that built on the MDG objectives, and national and international conferences organized in the country. She stressed the partnership built with the national pediatric association and NGOs, as well as linkages with WHO/PAHO, Spain and Chile. Local capacity was built using WHO/PAHO training modules; pediatric environmental health centers were established in Buenos Aires and some provinces. These centers have a mission and a clear plan of action: promote environmental health considerations, the collection of environmental history taking, and consideration of perinatal conditions, among others.

Ecology and Children in Kazakhstan – Dr. Zaira Mazhitova (Almaty, Kazakhstan) presented an initiative that looked into environmental degradation and pollution in relation to multi-system pathologies in children: ISTC project. Chromosomal alterations have been detected. A book will be published on the situation of children in the Aral Sea countries.

Children’s Environmental Health in Zambia – Dr. Nathalie Mugala (Lusaka, Zambia) described the situation in her country, where 62% of people live in rural areas. It signed the convention on the right of the child and Millenium Development Goals, but having 45% of the population being under 15 years old and 5% those under 5 years old. The main problems: malaria, ARI, diarrhea, HIV AIDS. Main risk factors: unsafe water, poor sanitation and hygiene, vector control, urban air pollution, food security and safety and chemicals. It is a poor country (58% are extremely poor). Copper mining is a polluting industry, as well as agriculture, but waste management is becoming a problem. The main chemical-related problems identified are linked to pesticide exposure, kerosene ingestion and lead exposure. She presented a “silent EH problem” discovered through IMCI in 2 rural health centre where scabies was found to be related to scabies in the mother and health care providers too.

10. This Workshop was followed by an Examination organized by IPA for the purpose of evaluating knowledge and providing a certificate of "Diplomate of CEH" to those pediatricians who participated in previous events and fulfilled some of the requirements set up by IPA. To be eligible for sit for the examination, the candidate pediatricians demonstrated that they had achieved or nearly achieved the following: (i) Attend a training workshop in its totality and take the pre- and post-workshop

individual evaluation, (ii) Present a seminar about children's environmental health at their home hospital or university, (iii) Record, file and analyze the pediatric environmental history forms from children with illnesses from environmental contaminants and record and report environmentally-related cases from their practices, (iv) Propose and discuss a community project on an environmental health problem.

11. IPA awarded a certificate of "Diplomate of CEH" to those pediatricians who successfully passed the examination.
12. Participants also received a copy of the American Academy of Pediatrics book *Pediatric Environmental Health* 2<sup>nd</sup> Edition and a set of WHO postcards. They will receive a copy of the WHO Resource Manual on *Children's Health and the Environment: A Global Perspective. A Resource Manual for the Health Sector* (published in 2006). Participants were reminded to attend the CEH Symposium on Monday, August 27 at the International Congress of Pediatrics.

## **Annex I**

List of Participants at Workshop on Children's Health and the Environment, Athens, Greece

August 25, 2007

Dr. Ana Maria Speranza (Argentina)  
Dr. Adelou Kakpossi (Benin)  
Dr. Achilles Attilakos (Greece)  
Dr. Archana Patel (India)  
Dr. Bhavneet Bharti (India)  
Dr. Sampada Tambolkar (India)  
Dr. Abhijeet Saha (India)  
Dr. Vinod Ratageri (India)  
Dr. Sabyasachi Som (India)  
Dr. Madeleine Folquet Amorissani (Ivory Coast)  
Dr. Praveen Sobti (India)  
Dr. David Githanga (Kenya)  
Dr. Fred Were (Kenya)  
Dr. Zaira Mazhitova (Kakakhstan)  
Khussainova Sholpau (Kazakhstan)  
Dr. Edison Mworozzi (Uganda)  
Dr. Alexia Prassovli  
Dr. Khurshid Talukder (UK)  
Spencer Li (US)  
Dr. Kathi Kemper (US)  
Dr. Evans Mpabalwani (Zambia)  
Dr. Nanthalile Mugala (Zambia)  
Dr. Ram Krishna Chandyo  
Dr. Nasib Guliev

Speakers :

Dr. Stella Canna-Michaelidou (Greece)  
Dr. Swati Bhave (India)  
Dr. Cliff O'Callahan (US)  
Dr. Jenny Pronczuk (Switzerland)  
Dr. Ruth A. Etzel (US)

**Annex II**      Workshop Agenda

Hilton Hotel, Erato A & B, Athens, Greece  
Saturday, August 25, 2007, 9:00 am – 7:00 pm

Workshop Directors:

Ruth A. Etzel, M.D., Ph.D., IPA Committee on Environmental Health

Jenny Pronczuk, M.D., World Health Organization

- 9:00 – 9:10      Introductions
- 9:10 – 9:20      Welcome from IPA Executive Director (Dr. Jane Schaller)
- 9:20 – 9:30      Welcome from WHO (Dr. Jenny Pronczuk)
- 9:30 – 10:00    Why are children uniquely vulnerable to environmental contaminants? (Dr. Jenny Pronczuk)
- 10:00 – 10:30   Respiratory Effects of Pollution (Dr. Swati Bhave)
- 10:30 – 10:45   Break
- 10:45 – 11:15   Endocrine Disruptors (Dr Stella Canina-Michaelidou)
- 11:15 – 11:45   Climate change (Dr. Cliff O’Callahan)
- 11:45 – 12:00   Questions
- 12:00 – 14:00   Lunch Break
- 14:00 – 15:30   Participant Case Studies on Environmental Pollution
- 15:30 - 16:00   Q & A (*Preparing for the examination*)
- 17:00 – 18:30   Examination for pre-registered participants

### **Annex III**

#### **List of Diplomates**

Dr. Bhavneet Bharti (India)  
Dr. Madeleine Folquet Amorissani (Ivory Coast)  
Dr. David Githanga (Kenya)  
Dr. Adamos Hadjipanayis (Greece)  
Dr. Adelou Kakpossi (Benin)  
Dr. Zaira Mazhitova (Kakakhstan)  
Dr. Nanthalile Mugala (Zambia)  
Dr. Edison Mworozi (Uganda)  
Dr. Archana Patel (India)  
Dr. Vinod Ratageri (India)  
Dr. Abhijeet Saha (India)  
Dr. Praveen Sobti (India)  
Dr. Sabyasachi Som (India)  
Dr. Ana Maria Speranza (Argentina)  
Dr. Sampada Tambolkar (India)  
Dr. Fred Were (Kenya)