









Executive Summary

Summit on Child Health and the Environment 2014

At the 20th Anniversary, the Hong Kong Paediatric Foundation ("HKPF") and the Hong Kong Paediatric Society ("HKPS") had organized a Summit on Child Health and the Environment 2014 at the Hong Kong Academy of Medicine Building, Aberdeen on 11-13 Oct 2014. This was the first environmental conference in Hong Kong focusing on children. The Organizing Committee chaired by Dr. CHAN Chok Wan has brought together international and local environmental experts, scientists, academics, paediatricians, public health initiatives, child health advocates, NGOs and policy-makers to share the research evidence, to identify the challenges and to define the strategic action plan on children's environmental health. A pre-summit Drawing Competition on "Healthy Environment, Healthy Children" was organized for kindergarten and primary school students to raise their awareness on this important child health issue.

The Summit was officiated by Dr. KO Wing Man, the Secretary of Food and Health and Mr. WONG Kam Sing, the Secretary of the Environment, HKSAR and fully supported by the two Bureaus and the professionals. All together 457 participants had joint the Summit to show their commitment to "Healthy environment, Healthy children". The Scientific Committee chaired by Dr. Lilian WONG has selected special topics in the Summit including environmental toxins and neurodevelopmental disorders; air pollution and childhood respiratory diseases; anti-smoking initiatives; food safety and child health; health challenges related to water, light and noise pollutions as well as electronic media. Keynote lectures highlighted the children's unique vulnerabilities to environmental hazards, the environmental health indicators as well as the role of healthcare professionals in safeguarding the children's environmental health. Birth Cohorts in the Asia-Pacific region inspired future research and policy directions. Experts illustrated how the "Nurturing Environments" and Children's rights reflected on environmental health advocacy. A Press Conference was held at the last day of the Summit with the following key messages delivered to the media and general public:

Children are more susceptible to environmental hazards.

The existing environment in Hong Kong is unfavourable to children's healthy growth and development.

It is time to take action before it is too late.





The Round-Table Discussion with different stakeholders at the end defined the action priorities to promote children's environmental health:

- (1) Air pollution
- (2) Anti-smoking
- (3) Food Safety
- (4) Promotion of Breastfeeding
- (5) New Birth Cohort for Hong Kong
- (6) Collaboration among different stakeholders
- (7) Child Health Policy
- (8) Children's Commission

The participants urged the HKPF and HKPS to continue the coordination role and set up a webpage on children's environmental health serving as platform for information sharing and collaboration among stakeholders. It was agreed that another follow up meeting should be organized in three years time to review the progress of the action plans.

The HKPF and HKPS showed great appreciation to the two Bureaus, the international and local speakers, the volunteers and all the participants for their support to the Summit and dedication to achieve the goal of "Healthy Environment for Healthy Children".





Report of Summit on Child Health and the Environment 2014

Background

In modern child health of the 21st Century, many childhood diseases are caused by environmental hazards. Children's Environmental Health is a new and expanding discipline which studies the profound impact of chemical and environmental hazards on child health. As healthcare professionals, we have to be aware of the environmentally related morbidities and mortalities for children and to equip ourselves for the new challenges in child health.

Hong Kong Paediatric Foundation (HKPF) wholly owned by the Hong Kong Paediatric Society (HKPS) is designated with the missions of public education and advocacy for child health in the community. At the time of 20th anniversary of the Foundation, HKPF and HKPS supported by Hong Kong Paediatric Nurses Association (HKPNA) have jointly organized a multidisciplinary "Summit on Child Health and the Environment" at the Hong Kong Academy of Medicine Jockey Club Building, Wong Chuk Hang, Aberdeen on 11-13 October 2014. For the first time in Hong Kong, this conference on environmental health is specifically focused on children. We bring together experts, scientists, advocates, policy-makers, community partners and those who care about children to learn the science, identify the gaps and formulate future strategic action plan with the aim of achieving a healthy environment for healthy children.

Throughout the Summit, the concept of "Environmental health" has been repeatedly emphasized. The conference bags and souvenirs are reusable environmental friendly bags, the former with pictures drawn by kindergarten and primary school students, winners of the "Drawing Competition on Healthy Environment, Healthy Children" and the later by rehabilitating members of a mental health shelter workshop. The Organizing Committee supports the "Green Monday" movement to promote green and healthy living and hence the food provided on the 3rd Day of the Summit (Monday) were all greens. A Press Conference was held on 13 Oct 2014 to convey to the media the key messages delivered at the summit, in hope to raise public awareness on the importance of environmental health in relation to child health. We believe protecting the health of children today will ensure the health of future adults.





The Organizing Committee empowered by the Council of the Hong Kong Paediatric Society and the Board of Directors of the Hong Kong Paediatric Foundation consisted of the following membership:

Organizing Committee

Dr. CHAN Chok Wan (Chairman)

Dr. Daniel C.S. CHIU

Dr. CHEUNG Hon Ming

Dr. Roy CHUNG

Dr. Genevieve P.G. FUNG

Ms. Rebecca LEE

Ms. Susanna LEE

Ms. Gloria S.K. LUK

Ms. Jennifer LUK

Dr. Lilian H.L. WONG (Hon Secretary)

Sub-Committees

Scientific Committee

Dr. Lilian H.L. WONG (Chairman)

Dr. CHAN Chok Wan

Ms. Ada Y.M. CHAN

Dr. Daniel C.S. CHIU

Dr. Genevieve P.G. FUNG

Dr. KO Po Wan

Dr. Simon H.S. LAM

Prof. Albert LEE

Ms. Billie LEE

Dr. Helen TINSLEY

Operation Committee

Ms. Agnes YEH (Operation Manager)

Ms. Gloria S.K. LUK (Contingency Manager)

Ms. HO Kit Ha

Dr. Lilian H.L. WONG

Ms. Esther W.L. YAM

Anniversary Banquet

Dr. CHEUNG Hon Ming

Dr. Dorothy Y.S. TAM

Ms. Anita K.F. LIU

Adjudicators of Drawing Competition

Mrs. Grace CHENG

Mrs. Augusta CHEUNG

Dr. Daniel C.S. CHIU

Mrs. Olivia LEUNG

Dr. Lucci Lugee LIYEUNG

HKPF website: www.hkpf.org.hk

Ms. Helen W.Y. TAM

Website Coordinator

Ms. Jay YUEN

Summit on Child Health and the Environment 2014 http://www.hkpf.org.hk/en/activities_20annv.php

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The Organizing Committee would like to recognize with sincere gratitude the Summit Advisor's advice and guidance, the group of regional and local experts in planning the Scientific Programme, and the volunteers devoted to child health in the preparation and final execution of the Summit, all of whom instituted and contributed to its ultimate success.

Advisor of the Summit

Prof. Ruth ETZEL (USA)

Regional Experts in Asia

Prof. CHEN Pau Chung (Chinese Taipei)

Prof. DING Zongyi (China)

Prof. Reiko KISHI (Japan)

Dr. Xihong LIU (China)

Prof. ZHANG Jun Jim (China)

Officiating Guests at the Opening Ceremony

Dr. KO Wing Man (Secretary for Food and Health, the Government of HKSAR)

Mr. WONG Kam Sing (Secretary for the Environment, the Government of HKSAR)

Officiating Guests at the 20th Anniversary Banquet

Mrs. Regina LEUNG (Patron of the Hong Kong Paediatric Society)

The Summit was fully supported by The Food and Health Bureau and Environment Bureau with the presence of Secretaries of the two Bureaus, Dr. KO Wing Man, Secretary for Food and Health and Mr. WONG Kam Sing, Secretary for the Environment at the Opening Ceremony as the officiating guests; the Under-Secretaries of the two bureaus, Prof. Sophia CHAN and Ms. Christine LOH participated as guest speakers, presented and partake in active discussion on the government's policy and plans on tobacco control and air quality improvements. Other policy makers present and jointed the Round-Table Discussion on the final day included Dr. York CHOW, Chairperson of Equal Opportunities Committee ("EOC") and Prof. Daniel SHEK, the Chairman of the Family Council, the Government of HKSAR.





Drawing Competition on "Healthy Environment, Healthy Children"

In celebration of the 20th Anniversary, HKPF had organized a drawing competition in April 2014 on the theme of "Healthy Environment, Healthy Children" to raise awareness among children, parents and child health workers in the community on the importance of environmental health. Local kindergartens and primary schools were invited to join the competition under three subgroups – Kindergarten, Junior Primary and Senior Primary. Over 150 drawings were received and adjudication was held on 30 June 2014. The Prize Presentation Ceremony was held on the first day of the Summit (11 Oct 2014) at the Hong Kong Academy of Medicine Building, Aberdeen with around 100 children and family members attending. The pictures of the champions of each subgroup were printed on the conference bags to promote the Healthy Environment theme to delegates.

The Summit on Child Health and the Environment

The Summit on Child Health and the Environment was well attended by 457 delegates from a variety of disciplines including paediatricians, academics, scientists, nurses and allied health professionals, community partners, administrators, and other stakeholders. Under the guidance of Professor Ruth ETZEL, Advisor of the Summit, we have brought together more than 50 international and local paediatric and child health experts, public health advocates, local environmental health initiatives, policy-makers, youth representatives as well as other related professionals, to share scientific evidence of the impacts of environment on our children's health, the burden of diseases from environmental hazards, the strategies of action plans from international and local experience, and most importantly the possible solution and policy to reduce environmental hazards and to save the lives of many susceptible children. The blessing and support from the Food and Health Bureau and the Environment Bureau elucidated the HKSAR's devotion to improvement of child health and the environment.

Through the active participation of speakers and delegates, many aspects of environmental impacts on child health were explored in details. All together there were 3 Keynote Lectures, 4 Symposia on various environmental topics, 3 Seminars focusing on emerging conditions and policies on environmental health, 5 Lunch Symposia on common childhood diseases in relation to environment and a Round Table Discussion as the final round up on priority action plan and recommendations.





Keynote lectures representing the highlight of the Summit included:

- 1. **Keynote Lecture 1:** Children's Unique Vulnerability to Environmental Hazards *Prof. Ruth A. ETZEL, U.S.A*
- 2. **Keynote Lecture 2:** Environmental Health Indicators for Children *Prof. DING Zongyi, China*
- 3. **Keynote Lecture 3:** Role of Healthcare Professionals in Safeguarding a Healthy Environment for Our Children *Dr. CHAN Chok Wan, Hong Kong*

In Keynote Lecture 1, Prof. Ruth Etzel emphasized that there was solid evidence showing that children are more susceptible to environmental hazards. Exposure during their developmental "windows of susceptibility" can trigger cellular changes leading to disease and disability across the life span. From the data published by WHO, 36% of all diseases among children aged 0 to 14 years is attributed to harmful exposures in the environment while 60% of those deaths occur in children under 5 years old.

Prof. DING Zongyi shared with the audiences in Keynote Lecture 2 that about fifteen risk factors to health and injuries parameters to children had been identified by a series of research and clinical studies in China. These factors were later used as the environmental health indicators for children, a new concept in the environmental health arena.

In Keynote Lecture 3, Dr. CHAN Chok Wan highlighted the role of healthcare professionals in safeguarding the environment for our children to grow and to develop. The new driving forces and global environmental changes have created challenges to child survival and emerging child health issues in the 21st century. Public education and awareness on the importance of environmental health is a key initiative to engage the community to take action.

The Birth Cohort session was another highlight in the Summit:

We have invited regional experts from Mainland China, Japan, Chinese Taipei and Hong Kong to explicate their research findings on the causal relationship of environmental factors with various health outcomes. The Birth Cohorts helped to identify the optimal environment to promote not only child health, but also adult health. The findings regarding social determinants of health should be useful for influencing policy.





Birth Cohort and Environmental Health in Asia

- I. Introduction of Birth Cohort and the Birth Cohort Consortium of Asia (BiCCA)

 Prof. Ruth A. ETZEL, U.S.A and Prof. CHEN Pau Chung, Chinese Taipei
- II. The Shanghai Birth Cohort

 Prof. ZHANG Jun Jim, China
- III. Taiwan Birth Panel Study on Children's Environmental Health Prof. CHEN Pau Chung, Chinese Taipei
- IV. Twelve Years of Progress in the Hokkaido Birth Cohort Study Environment and Children's Health: Focused on Dioxins and PFCs Prof. Reiko KISHI, Japan
- V. Birth Cohort and Environmental Health in Hong Kong

 Dr. C. Mary SCHOOLING, Hong Kong

The Hong Kong 1997 cohort is one of the largest Chinese birth cohorts in the world. Its data showed how environmental exposures relate to growth and development in the first 1,000 days of life, the most vulnerable period for rapid developing brains. Hong Kong has many unique social characteristics and the Hong Kong 1997 Cohort has provided data on growth and development of Hong Kong children. The study has examined minor genetic differences, such as G6PD deficiency or thalassemia minor as well as sub-group analysis looking into factors affecting the physical and mental health of adolescents.

Other areas of children's environmental health covered in the Summit included *neurodevelopmental* disorders and environmental hazards; air pollution and respiratory diseases; health impact of second-hand and third-hand smoke to child health; food safety and child health; light, noise, water pollutions and electronic media to child health. For details, please refer to the abstracts in the programme book and respective PowerPoint presentations in the Foundation website.

In Seminar 1, Prof. ZHANG Jun Jim (China), Prof. CHEN Pau Chung (Chinese Taipei) and Prof. Simon LAM (Hong Kong) cautioned that millions of children have developmental problems caused by environmental hazards, and statistics showed a rising trend of birth defects occurring especially in developing countries in recent years. The prenatal environmental exposures of heavy metals such as lead, methymercury and other neurotoxins are recognized causes of neurodevelopmental disorders in children. Even lower exposure level has clearly been shown to have clinical and subclinical effects. Childhood lead exposure is estimated to contribute about 600,000 new cases of intellectual disabilities every year.

HKPF website: www.hkpf.org.hk





In Symposium 1 on Tobacco and Impact of Second Hand Smoke on Child Health, Dr. Judith MACKAY, Prof. Sophia CHAN, Dr. Daniel HO, Dr. Brian CHUNG and Dr. Patrick LO illustrated the serious negative impacts of second hand and third hand smoke on child health across different generations. The HKSAR government has done a great job with enacting legislations on tobacco control indoors. However, children are still exposed to household second and third hand smoke that jeopardizes their short term and long term health. The Panelists recommended a plan for action that includes 1) Children should be protected from any form of tobacco exposure; 2) There should be legislation to prohibit smoking in vehicles with children inside; 3) Curriculum on environment health for healthcare professionals should be developed.

In Symposium 2 on Air Pollution and Respiratory Diseases, Prof. Ruth ETZEL, Prof. Reiko KISHI, Prof. WONG Tsz Wai, Prof. Margaret IP and Dr. LEE So Lun presented on local and regional studies that resounded the global concern of preventable deaths such as Ischemic heart diseases, stroke, COAD, URTI and lung cancer in relation to air pollution, especially among low income groups. The Adverse effects of Air Pollution on children include increased hospital AED visits, admission, infant mortality and SIDS. Children are more affected by both outdoor and indoor air pollution because of their pattern of activities. In 2010, WHO estimated that 7 million deaths were related to air pollution (outdoor 3.7 millions Vs indoor 4.3 millions). Ms. Christine LOH revealed in Seminar 2 government data that showed air quality in Hong Kong is above the WHO AQG standard since Hong Kong has a high activity, high emissions neighbourhood. Prof. Peter BRIMBLECOMBE highlighted in Seminar 3 that regulation of air quality in Hong Kong had focused on emission control of transport vehicles and marine vessels, but there is now increasing attention on exposure, which can be highly variable depending on indoor, outdoor, transit and activity levels. Panelists suggested to modify city design as well as activities pattern to reduce indoor and outdoor exposure to air pollutants.

Dr. York CHOW in *Seminar 2 on Environmental Health Advocacy* emphasized that all children should have the right to fully develop their abilities and potentials. Although the International Convention on the Rights of the Child was adopted in Hong Kong since 1994, there are still gaps and inadequacies that hinder developmental opportunities of certain at-risk groups such as children living in poverty, those with disabilities or from ethnic minorities.





In Seminar 3 on Environmental Health Initiatives, Prof. HO Kin Chung reviewed the accelerating challenges with monitoring and maintaining of quality of imported water from the East River (a tributary of the Pearl River in Guangdong), which contributes to 80% of portable water in Hong Kong. In order to maintain sustainable water supply and thwart threats of water pollution, cross-border collaboration should be strengthened and new water resources should be explored.

In Symposium 3 on Food safety and Healthy eating, Dr. Samuel YEUNG, Prof. KWAN Hoi Shan, Prof. DING Zongyi and Dr. LIU Xihong described threats to children that may arise from infected or contaminated food (food-borne infection, food-borne intoxication) and toxicants such as methylmercury exposure from fish consumption. There are systems in place in Hong Kong to monitor food safety but "Health Food" and "Health Supplement" are in the grey zone where there is no regulation or monitoring. The government, paediatricians and scientists should work together proactively to educate the public on healthy and safe eating habits.

In Symposium 4 on Environmental Pollutants and Child Health, Prof. WONG Ming Hung, Dr. Thomas CHUNG, Mr. Maurice YEUNG and Dr. Albert CHAU revealed how environmental pollutants such as heavy metals and organic pollutants in food chain, noise and light pollutions as well as electronic media affected children's health physically and psychologically. The negative impact of electronic media was clearly documented whereas more longitudinal studies are required to establish the effect of sound, light and some of the newer toxins in the food chain.

In Lunch Symposium V, Prof. Daniel SHEK, Prof. Cythia LEUNG, Prof. Albert LEE, Ms. Kathy WONG and youth representatives from KIDS DREAM shared with us the impact of "environments" to child health. "Environment" in the board sense should not limited to the "Physical environment " such as living environment, air, noise, light and water. It should also include "Social environment", "Family environment", "School environment", "Peer environment", "Legal environment" and "Play environment".





Press Conference

A Press Conference was held at the third day of the Summit represented by Prof. Ruth ETZEL, Dr. CHAN Chok Wan and Dr. Lilian WONG to present the key messages delivered at the Summit. Major local newspapers attended and reported on the event on the next day.

Key Message from the Summit presented at the Press Conference

- The invisible impacts of Environment are becoming more visible now.
- Children are more vulnerable to environmental hazards.
- The current environment in Hong Kong is unfavourable for our children's healthy growth and development.
- It is time to take action before it is too late.
- All stakeholders should work together to create a healthy environment for children and the community as a whole to live.

The Press Release both in English and Chinese are posted in the Foundation's website. The newspaper reports are in Appendix II.

Round-Table Discussion

At the end of the conference, stakeholders and regional experts gathered at a Round Table to discuss and formulate a strategic action plan to address the pressing environmental health issues, to identify all key stakeholders, to assess resource implications, to consolidate outcome measures and to guide future research direction and government policy to achieve our goals for environmental health.

Ms. Christine LOH, the Under-Secretary for the Environment, has repeatedly emphasized at the conference that "Environmental Health" is not just a scientific category but a genuine public health issue that will affect children's health as well as the health of all in the community. She urged healthcare professionals and scientists to collaborate in formulating strategic actions without further delay.

All panelists affirmed that children, youth, families, healthcare professionals and community organizations involved with child health are major stakeholders. Many environmental health issues need to be addressed but in terms of priority, *air pollution, tobacco control and food safety* are the three major issues requiring immediate actions. We should push for legislations targeting on air pollution, second and third hand smoke, healthy food and healthy supplements in order to protect the health of our children.

HKPF website: www.hkpf.org.hk





A supportive environment necessary for the Promotion of breastfeeding has to be zealously championed to ensure children are given the most desirable nutrition. Panelists emphasized that in the planning of environmental health policies, age-specific needs of children have to be considered as children's biological and psychological needs differ at different developmental stages. The economic, political and cultural environments also have to be taken into account when prioritizing the action plans.

Youth representatives pointed out that children have different concerns as compared to adults. Whilst adults are more focused on the environmental effects on physical health, young people are more concerned about the mental health problems since children and adolescents in Hong Kong are facing tremendous stress. They urged the adults to listen to their needs. Experts also supported that more resource should be put on mental health environment.

Prof Ruth ETZEL, with her global perspective on environmental health, commented that a number of experts dealing with different environmental issues are working separately. It would be more cost-effective to encourage collaborations among all the stakeholders so that they can work synergistically to ensure adequate expertise in each aspect. Enterprises, community organizations and environmental groups are good partners in promoting the concept of environmental health in the community. It is also very important to work with the government for future regulations and implementations of the environmental health policies. Both Dr. York CHOW and Ms. Christine LOH pointed out that appropriate timing and opportunity is crucial in creating the appropriate atmosphere for promulgating environmental ideas and education, and driving the government and policy makers to focus on environmental health. In order to draw the Government's attention, we should focus on a few realistic and achievable goals.

The Panelists suggested HKPS and HKPF to take a coordinated role for local and regional experts to communicate and collaborate for future research and strategic measures on environmental health. Dr. CHAN Chok Wan and Dr. Lilian WONG agreed that HKPS and HKPF can facilitate the process. A webpage on Environmental Health will be set up at the HKPF website to share the Summit materials, information, research ideas, policies and practical measures. It is hoped that another meeting can be organized in 2-3 years to update the progress and development of children's environmental health in the region.





Message from the Round-Table Discussion:

- 1. Education and awareness of the public especially parents should be enhanced.
- 2. The broad definition of Environment should include not only physical environment but also social, mental, family, school, peer and economic environments.
- 3. Family is an essential factor for ensuring children's health both from experts and youth's perspectives. As adults, we should respect and listen to youth's voice and help them to fulfill their dreams.
- 4. Collaboration among different healthcare professionals and stakeholders are the key factor to success.
- 5. Timing and opportunity is also crucial in engaging the policy-makers, the community and all the stakeholders on children's environmental health.
- 6. Legislation on various environmental health items should be done timely.
- 7. Child health policy and Children Commission are the two essential pillars in securing children's health.
- 8. Paediatricians should be more involved in the area of environmental health.
- 9. Research on environmental health should be encouraged in order to facilitate evidence-based implementation of policy and practice.
- 10. Government and policy-makers should be approached tactfully with realistic suggestions and achievable goals.





Impact of the Summit:

- 1. First time trans-sectoral and multidisciplinary effort to tackle the problem.
- 2. First time to focus on environmental problems affecting child health.
- 3. Participating professionals agreed unanimously that environmental problem is a multi-facet problem with strong element of public health.
- 4. Concerted effort from all stakeholders is mandatory for building a healthy environment for our children to grow healthily.
- 5. Strategic action planning for short, intermediate and long term is important for successful implementation.
- 6. Clear deliverables should be defined as outcome measures.
- 7. It is high time to recognize and address environmental problems affecting child health in Hong Kong.
- 8. Collaboration between countries and special administrative regions within the Asia Pacific region is essential for effective control of the environment.
- 9. Conjoint effort by the Government, NGOs and professional bodies is important for carrying out epidemiological studies, research and health policies to improve the environment for our children.
- 10. A Child Health Policy and a Children's Commission will be significant milestones for building a "healthy environment for healthy children".

Priorities to address imminent environmental issues in Hong Kong as agreed at the Summit:

- 1. Air Quality
- Food Safety
- 3. Breastfeeding promotion
- 4. Anti-Smoking
- 5. Another Cohort Birth Study is indicated for Hong Kong
- 6. Education and advocacy to the public
- 7. Child Health Policy
- 8. Children's Commission





Conclusion

The promising response of the Summit gave us tremendous encouragement and enlightenment to continue our mission in promoting child health and environmental health in Hong Kong and the Asia Pacific Region. The Summit has established a platform for those interested in and dedicated to children's environmental health to come together for reflection and collaboration. This is only the beginning of a long journey to tackle environment health issues. We expect more and more collaborative work among different stakeholders in coming days. Environmentally-related childhood diseases have high social and economic costs. Hong Kong, as a mature and progressive society, must not shirk its responsibility to deal with the emerging child health challenges in time.

Children represent 20% of our population but 100% of our future. It is the prime duty of every adult and healthcare professional to ensure a healthy environment for our children to grow and to flourish. We need to act now to protect the health of children today and the adults in future before it is too late. Let's begin with working in solidarity on engaging and mobilizing professional, social, ecological and government bodies to achieve our common goal of building a "Healthy Environment for Healthy Children".

Prepared by

Dr. CHAN Chok Wan, Chairman of Organizing Committee and Board Chairman of HKPF Dr. Lilian H.L. WONG, Chairman of Scientific Committee and President of HKPS

30th Oct 2014





Appendix I: Programme at-A-Glance

	Programme-at-A-Glance					Alona	
		11 Oct 2014 (Day 1)		12 Oct 2014 (Day 2)		13 Oct 2014 (Day 3)	
	0830	Registration		Registration		Registration	
	0900	Keynote Lecture (1) Moderator: Dr. Chok Wan CHAN Children's Unique Vulnerability to Environmental Hazards Prof. Ruth A. ETZEL		Birth Cohort and Environmental Health in Asia Moderators: Prof. Ruth A. ETZEL, Dr. Chok Wan CHAN 1. Introduction of the BiCCA (Birth Cohort Consortium of Asia) Prof. Ruth A. ETZEL 2. The Shanghai Birth Cohort Prof. Jun Jim ZHANG		Keynote Lecture (3) Moderator: Dr. Lilian H.L. WONG Role of Paediatricians and Child Health Professionals to Ensure Healthy Environment for Children Dr. Chok Wan CHAN	
	1000			Taiwan Birth Panel Study on Children's Environmental Health Prof. Pau Chung CHEN		Seminar 2: Environmental Health Advocacy Moderators: Dr. Chok Wan CHAN, Dr. William WONG 1. WHO and Global Initiatives on Environmental Health Advocacy Prof. Ruth A. ETZEL	
	1030	Tea Break		Tea Break		Tea Break	
	1100	Seminar 1: Neurodevelopmental Disorders in Conjunction with Environmental Hazards Moderators: Dr. Daniel C.S. CHIU Dr. Stephenie K.Y. LIU 1. Exposure to Environmental Pollutants during Pregnancy and Newborn Development in Shanghai Prof. Jun Jim ZHANG		Twelve Years of Progress in the Hokkaido Birth Cohort Study on Environment and Children's Health: Focused on Dioxins and PFCs Prof. Reiko KISHI		2. Children's Rights and Equal Opportunities Dr. York Y.N. CHOW	
	1130	Prenatal Environmental Exposure and Neurodevelopment of Infants Prof. Pau Chung CHEN		Birth Cohort and Environmental Health in Hong Kong Dr. Mary SCHOOLING		Environmental Protection and Public Health in Hong Kong Ms. Christine K.W. LOH	
	1200	Effects of Heavy Metal Exposure on Neurodevelopment of Infants Prof. Simon H.S. LAM		Panel Discussion		Panel Discussion	
	1230	Lunch Symposium (I) Sanofi Moderator: Dr. Man Yung CHENG Japanese Encephalitis and Prevention in Asia: the Unmet Needs Dr. Li-Min HUANG	Friesland Moderator: Dr. Henry C.L. AU-YEUNG Long Term Health	GSK Moderator:	Danone Moderator: Dr. Jason C.H. YEUNG Perinatal Nutrition on Intestinal Immune System Modulation: Does This Predict Future Health? Prof. Mimi TANG	Lunch Symposium (V) The "Nurturing Environment" for Children Moderator: Dr. Lilian H.L. WONG 1. Family Environment (Prof. Daniel T.L. SHEK) 2. The Family and the School (Prof. Cynthia LEUNG) 3. Healthy School Environment (Prof. Albert LEE) 4. Play & Play Environments – an Integral Part of Happy and Healthy Childhood (Ms. Kathy K.H. WONG) 5. Peer Environment (Kids Dream)	





1400 Symposium 1 Symposium 2 Keynote Lecture (2) Seminar 3: Tobacco and Impact Moderator: Dr. Chok Wan CHAN **Environmental Health Initiatives** Air pollution & of Second-hand Smoke Respiratory Disease Moderators: Dr. Helen TINSLEY, on Children's Health Moderators: **Environmental Health Indicators** Dr. Nai Shun TSOI Dr. Alfred Y.C. TAM, Moderators: for Children Dr. Kelvin K.W. LIU, Dr. Aaron C.M. YU Prof. Zongyi DING Dr. Homer W.K. TSO 1. Global Scene of 1. Exposure to Air Pollution and the Impact 1. Children's Health: Air Pollution to Health The Impact of Tobacco Prof. Ruth A. ETZEL Prof. Peter BRIMBLECOMBE Smoking, Second and Third Hand Smoke Prof. Judith MACKAY 1430 2. Tobacco Campaign 2. Phthalate and 2. Water Quality and Control of Water in Hong Kong Pollution in Hong Kong Organophosphate Prof. Sophia S.C. CHAN Triesters In House Prof. Kin Chung HO Dust and their Associations with Asthma and Allergies Dr. Reiko KISHI 1500 3. Territory-wide Symposium 4 Panel Discussion 3. Air Pollution and Symposium 3 Study on Smoking Respiratory Health: Food Safety and Environmental Pollutants and Exposure in Local Studies and **Healthy Eating** Adolescents and Child Health Implications for **Moderators:** Children Dr. Sin Ping MAK, Prevention Moderators: Prof. Tze Wai WONG Dr. William WONG Dr. Daniel C.S. CHIU, Dr. Daniel S.Y. HO 1. Food Safety for Dr. Nai Shun TSOI Children in 1. Sources, Fates, Effects Hong Kong and Health Risk Dr. Samuel T.K. YEUNG Assessments of Major Food Contaminants (DDT, PBDE and Hg), With Emphasis on Pearl River Delta Prof. Ming Hung WONG 1530 Tea Break 2. Health Effects of Tea Break 2. Food Safety, Food Authentication, Electronic Media for Children in and Children's Health Hong Kong Prof. Hoi Shan KWAN Dr. Thomas W.H. CHUNG 4. Epigenetics and 4. Pneumococcal 1600 Tea Break **Round Table Discussion** Health Risks with Disease and with Regional Experts -Tobacco Exposure Prevention in How to Achieve the Goal of Dr. Brian H.Y. CHUNG Hong Kong "Healthy Environment for Healthy Children"? Prof. Margaret IP Moderator: Dr. Chok Wan CHAN 5. Epidemiology of 3. Urban Forms in 1630 5. Hong Kong 3. Healthy Eating for Panelists: Hong Kong and Their 1. Prof. Ruth A. ETZEL Legislation on Respiratory Children in the Tobacco Control Diseases for 21st Century Acoustical Prof Zongyi DING Prof. Zongyi DING Dr. Patrick C.S. LO Children in Hong Environment Dr. York Y.N.CHOW Mr. Maurice YEUNG Kong Prof. Sophia S.C. CHAN Dr. So Lun LEE Ms. Christine K.W. LOH Prof. Albert LEE 4. Promotion of 4. Public Concern for Panel Discussion Panel Discussion 1700 Prof. Daniel T.L. SHEK Excessive External Breastfeeding -Ms. Lilian S.K. LAW Practical Measures Lighting Youth Representative (Kids Dream) and Environmental Dr. Albert W.L. CHAU Hazards Dr. Xihong LIU 1730 End of Day 1 Panel Discussion Panel Discussion **Closing Ceremony** End of Day 2 1800 1830 Reception and 20th Anniversary Dinner

HKPF website: www.hkpf.org.hk





Appendix II: Newspaper reports on the Summit

蘋果日報

2014年10月14日

環境污染 15%港童疾病元兇

【本報訊】環境問題對香港看似遙遠,其實正影響兒童成長與發育。香港兒科醫學會表示,本港環境不利於兒童健康,除已知的嚴重空氣污染問題,食品安全、二手煙環境、光及噪音污染,均能影響兒童健康。外國專家估計本港 15%兒童疾病與環境中有害物質有關,如空氣污染及二手煙等;本港專家則批評坊間充斥失實健康食品廣告,曾有家長誤信廣告,讓子女服用過量維他命補充劑,導致肝功能受損。

記者:嚴敏慧

香港兒科醫學會聯同香港兒科基金,舉辦「兒童健康與環境高峯研討會」,討論兒童健康及環境污染的連繫。兒科醫學會會長王曉莉表示,環境問題並非僅影響發展中國家,本港這個發展成熟且進步的社會,亦有各種環境因素影響兒童成長及發育。

近來廣受關注的食品安全問題,對兒童健康亦有直接影響。兒科基金主席陳作耘舉例,如劣質豬油事件,顯示兒童可直接進食受影響食品,或會令健康受損。王曉莉補充,所謂健康食品及健康補充品亦需關注,因為本港法例存有灰色地帶,未有就其聲稱成份及功效等進行規管。

她指,2008年曾有個案,家長原意想讓子女補充營養,讓四名8至12歲子女服食維他命A補充劑,結果其中兩人因肝功能受損入院,另外二人也因神經受損出現行動問題,追查下始發現他們進食的份量,竟為兒童攝取上限的5至10倍,結果身體受損。她認為,現時坊間充斥失實健康食品廣告,不少人會誤信,甚至認為兒童也適用,實需加強公眾教育及立法管制。



玩具油漆含鉛礙腦發展

其他影響本港兒童健康的環境問題,還包括空氣污染。 王曉莉指,本港二氧化硫及懸浮粒子水平長期高於世衞 水平,多個本地及外國研究已證實,空氣污染會增加兒 童呼吸道疾病,哮喘及敏感等亦與空氣污染相關。二手 煙問題亦備受關注,她強調,兒童應免受吸煙危害,建 議當局立法加強規管,如有兒童在車內,應禁止吸煙。

Summit on Child Health and the Environment 2014 http://www.hkpf.org.hk/en/activities_20annv.php





陳作耘表示,環境因素對兒童健康影響很廣,如鉛、水銀等重金屬傷害,貌似與香港無關,其實可能已暗藏在玩具上。他指,由於一些玩具上的油漆可能含鉛,或影響兒童腦部發展,即使暴露在較低水平,也會影響身體。估計全球每年受鉛侵害,引致兒童智障病例達 60 萬宗;雖然未有相關本港數字,但情況亦不能忽視。



■王曉莉(右)表示,家長胡亂給予子女服用各種補充劑小心適得其反,影響健康。中為陳作耘醫生,左為 Ruth Etzel 教授。王子俊攝





蘋果日報

2014年10月14日

環境污染物年殺 500 萬兒童

【本報訊】化學及環境有害物質對全球兒童健康是一大威脅,世界衞生組織推算,在 14 歲或以下的兒童疾病中,36%是由環境中的有害物質引發,估計每年因而導致超過 500 萬名兒童死亡,當中近六成更是 5 歲以下。

身體代謝高易吸毒素

有國際兒科疾病專家指出,兒童在發育階段,對有毒物質的反應特別敏感,故對健康的危害隨時是成年人的 2 至 10 倍。兒童環境健康學近年備受醫學界關注,主要研究範圍包括化學及環境有害物對兒童健康的長遠影響。國際兒科協會(International Paediatric Association)環境小組國際顧問 Ruth Etzel 教授指出,兒童因在快速成長階段,加上身體代謝率高及免疫系統不成熟,故身體相對會接收比成人更大劑量的環境毒素,對健康的危害自然更大。

她舉例,即使身處同一個空氣污染環境中,小朋友除了會比大人吸入較多污染物,更因對污染物較敏感,出現的症狀會較嚴重,引致的長遠後遺症亦更顯著。她指出,尤其在發展中國家出生的兒童,特別容易因環境傷害引發各種發展障礙。近年全球患有先天缺陷的兒童也有上升趨勢,治療與環境有關的兒童疾病需要高昂的社會、醫療及經濟成本,故呼籲各國衞生部門要及早關注相關問題,並作出適當防範。







東方日報

2014年10月14日

環境污染 兒童易患病

【本報訊】兒童比成年人對環境污染更敏感。有兒科專科醫生解釋,孩子的器官急速發展成長,代 謝率比成年人快,因此在相同環境污染下,對兒童構成的影響或比成年人大,估計高二至十倍不等。

香港兒科醫學會聯同香港兒科基金舉辦兒童健康與環境高峰研討會,基金主席陳作耘醫生昨指,整合意見後會向有關部門提出對空氣污染、食物安全、二手煙以及母乳友善政策的意見。

24%疾病「元兇」

世衞數據顯示,十五歲以下的兒童疾病中,三成六由環境中的有害物質造成。全球每年超過五百萬名兒童死於與環境有關的疾病,當中六成個案為五歲以下兒童。

國際兒科協會環境小組國際顧問 Ruth Etzel 表示,綜合所有病人年齡的數據,有兩成四疾病由環境 污染所致。香港兒科醫學會會長王曉莉說,食物安全亦是次討論的焦點,然而本港法例未有監管兒 童食物。







South China Morning Post

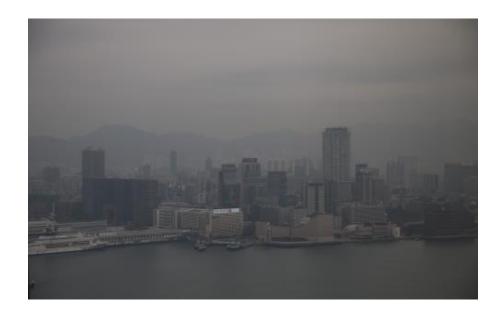
14 Oct 2014

Children are much more likely to be harmed by air pollution than adults - and they're exposed to more of it in Hong Kong than in Western countries, a World Health Organisation adviser says.

Reducing air pollution should be a priority for policymakers, the Summit on Child Health and the Environment was told yesterday. "Hong Kong is in an artificial valley of skyscrapers, so the air settles and makes it very bad for children walking the streets," said Professor Ruth Etzel, of the World Health Organisation, adding that exposure to harmful particles such as sulphur dioxide could cause lung problems such as asthma and bronchitis.

Environmental hazards had been identified as the cause of 36 per cent of all disease in children aged 0 to 14 worldwide, Etzel said. Weaker immune systems and developing organs made children more vulnerable than adults to environmental hazards such as air pollution, contaminated food and lead poisoning.

Paediatricians at the summit also cited research showing lead - which can be found in paints and varnishes - impedes neurological development in children.



HKPF website: www.hkpf.org.hk





Appendix III: Snapshots of the Summit

Opening Ceremony





The Summit opening was officiated by Dr. KO Wing Man, Secretary for Food and Health, HKSAR and Mr. WONG Kam Sing, Secretary for the Environment, HKSAR and accompanied by Prof. Ruth ETZEL, Advisor of the Summit, Dr. CHAN Chok Wan, Board Chairman of the Hong Kong Paediatric Foundation and Dr. Lilian WONG, President of the Hong Kong Paediatric Society



Hand Shaking by the Secretaries for Food and Health and the Environment signified close collaboration between the two Bureaus with the healthcare professionals in promoting Children's Environmental Health in the future





Guests and Delegates at the Summit



Officiating Guests meeting with overseas speakers, Council of HKPF and HKPS and local Paediatricians



Group photo of Guests, Speakers and Delegates at the Summit





Keynote Lectures





Keynote 1 on Children's Unique Vulnerability to Environmental Hazards by Prof. Ruth ETZEL

Keynote 2 on Environmental Health Indicators for Children by Prof. DING Zongyi



Keynote 3 on Role of Healthcare Professionals in Safeguarding a Healthy Environment for our Children by Dr. CHAN Chok Wan





Seminar 1 on Neurodevelopmental Disorders in Conjunction with Environmental Hazard



Prof. ZHANG Jun Jim, Prof. CHEN Pau Chung and Dr. Simon Lam were speakers for Seminar 1



Two Moderators, Dr. Daniel CHIU and Dr. Stephenie LIU and the three Speakers

Seminar 2 on Environmental Health Advocacy



Two Moderators, Dr. CHAN Chok Wan and Dr. William WONG and the Speakers, Ms. Christine LOH, Dr. York CHOW and Prof. Ruth ETZEL



Dr. York CHOW advocating Children's right



Ms. Christine LOH talking about Air Quality





Seminar 3 on Environmental Initiatives



Two Moderators, Dr. TSOI Nai Shun and Dr. Helen TINSLEY and Speakers Prof. Peter BRIMBLECOMBE and Prof. HO Kin Chung

Birth Cohort and Environmental Health in Asia



Two Moderators, Prof. Ruth ETZEL, Dr. CHAN Chok Wan and Speakers Dr. Mary SCHOOLING, Prof. ZHANG Jun Jim, Prof. CHEN Pau Chung and Prof. Reiko KISHI





Symposia 1 on Tobacco and Impact of Second-hand Smoke on Children's Health



Two Moderators, Dr. Homer TSO and Dr. Kelvin LIU and the Speakers, Prof. Judith MACKAY, Dr. Patrick LO, Prof. Sophia CHAN, Dr. Brian CHUNG and Prof. Daniel HO



Community partners from the Hong Kong Council of Smoking and Health ("COSH") and the Speakers

Symposia 2 on Air Pollution and Respiratory Disease



Speakers Dr. LEE So Lun, Prof. Margaret IP, Prof. Reiko KISHI, Prof. Ruth ETZEL and Prof. WONG Tsz Wai



Dr. Genevieve FUNG and the two Moderators, Dr. Aaron YU and Dr. Alfred TAM





Symposia 3 on Food Safety and Healthy Eating



Two Moderators, Dr. MAK Sin Ping and Dr. William WONG and Speakers, Dr. Samuel YEUNG, Prof. KWAN Hoi Shan, Prof. DING Zongyi and Dr. LIU Xihong



Expert Panel and Local Paediatricians

Symposia 4 on Environmental Pollutants and Child Health



Moderator, Dr. Daniel CHIU and Speakers Prof. WONG Ming Hung, Dr. Thomas CHUNG,
Mr. Maurice YEUNG and Dr. Albert CHAU and Moderator Dr. TSOI Nai Shun





Lunch Symposium I: Japanese Encephalitis



Dr. KO Po Wan, Moderator Dr. CHENG Man Yung, Speaker, Prof. HUANG Li Man, Dr. Lilian WONG & Dr. Daniel CHIU

Lunch Symposium II: Early Nutrition



Speaker Prof. Frits A.J. MUSKIET and Moderator Dr. Henry AU-YEUNG

Lunch Symposium III: Cervical Cancer Prevention



Speaker Prof. LEUNG Ting Fun and Moderator Dr. NG Yin Ming

Lunch Symposium IV: Perinatal Nutrition



Moderator Dr. Jason YEUNG and Speaker Prof. Mimi TANG

Lunch Symposium V: The Nurturing Environment for Children



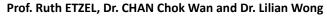
Youth from KIDS DREAM, Florence and Daniel,
Moderator Dr. Lilian WONG, Speakers, Prof. Daniel SHEK,
Ms. Kathy WONG and Prof. Cynthia LEUNG





Press Conference







Key Messages delivered at the Press Conference

Round-Table Discussion



Panelists at the Round-Table Discussion: KIDS DREAM Representatives, Ms. Lilian LAW, Prof. DING Zongyi, Dr. York CHOW Dr. Lilian WONG, Dr. CHAN Chok Wan, Prof. Ruth ETZEL, Ms. Christine LOH, Prof. Daniel SHEK, Prof. Albert LEE

HKPF website: www.hkpf.org.hk





Closing Ceremony



Here we commit to create a Healthy Environment for our Children



Let's work together to achieve the goal of "Healthy Environment for Healthy Children"





20th Anniversary Banquet



Cake Cutting ceremony by the Guest of Honour, Mrs. Regina Leung, Patron of the HKPS and HKPF and Board of Directors of HKPF, Dr. CHENG Man Yung, Mrs. Augusta CHEUNG, Dr. CHAN Chok Wan, Dr. Lilian WONG, Dr. Roy CHUNG and Dr. NG Yin Ming



Group photo with Mrs. Regina Leung and the Council of HKPS and Board of HKPF







The inspiring performance by Little Life Warrior Choir at the Anniversary Banquet



The Organizing Committee, subcommittee members, volunteers and the Friends of Child Health





Drawing Competition on "Healthy Environment, Healthy Children"



Mrs. Regina Leung was attracted by the creative pictures from the winners of the Drawing Competition



Group photo with the children winners of the Drawing Competition and their families