

## **PARALLEL SESSION 1.5**

**WIN-WIN STRATEGY FOR THE CONTROL AND PREVENTION OF NCDs AND  
TACKLING ENVIRONMENT AND CLIMATE CHALLENGES**



## | BACKGROUND

Environmental factors are main causes of noncommunicable diseases (NCDs). Growing evidence indicates that early life exposure to environmental risks, such as chemicals, radiation and air pollutants, might increase NCD risk throughout the life course.<sup>1</sup> Air pollution alone causes about 6.5 million deaths a year, or one in eight of all deaths. The strongest causal associations are seen between PM<sub>2.5</sub> pollution and cardiovascular and pulmonary disease as well as with several highly prevalent non-communicable diseases including diabetes, decreased cognitive function, attention-deficit or hyperactivity disorder and autism in children. Yet, around 2 billion children live in areas that exceed the World Health Organization annual limit of 10 µg/m<sup>3</sup>. These health burdens related to environmental pollution disproportionately fall on the poor and marginalized communities in low and middle income countries.<sup>2</sup>

There is a need for increased understanding on the environmental determinants of NCDs, including but not limited to: climate change (e.g. heat waves increasing risks for CVD and stroke), biodiversity loss, environmental pollution (air, water, soil, heavy metals, chemicals); impacts of the urban and built environment on NCDs (e.g. car-centric urban planning, environmental noise, housing, walkability, safe green spaces for physical activity and social interaction); consumption and production patterns across health, nutrition and other sectors. Moreover, the compounding effects of multiple environmental stressors (e.g. multiple contaminants through multiple exposure pathways) are poorly understood.

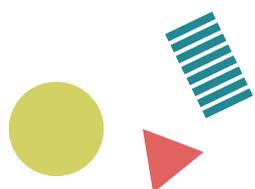
Although there is a growing understanding of the close relationship between health and environment, the linkages are not fully understood and integrated solutions are not effectively considered in policies and interventions across sectors. Moreover, there is a lack of policy recommendations that would enable policy makers to target the interventions across key sectors that would have the greatest beneficial long-term impacts on health, especially of vulnerable populations including children. Improving our understanding of these linkages and how they can be applied to support integrated decision-making can catalyse the public and private sector to act. Whole-of-government and whole-of-society actions are urgently needed for the control and prevention of NCDs and for reversing the alarming trend of environmental degradation and climate change.

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1 Preventing noncommunicable diseases by reducing environmental risk factors. WHO 2017

2 The Lancet Commission on pollution and health (2017)

## | OBJECTIVES

- To share the latest knowledge on environmental determinants of NCDs
- To share practical experiences and lessons learned on the use of science-based tools for identifying and assessing environmental risks of NCDs
- To share good practices and lessons learned on implementing actions to reduce environmental risks of NCDs
- To discuss multi-sectoral and multi-stakeholder strategies, mechanisms and financing needs to tackle environmental determinants of NCDs





## Panelist

### William A Suk

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Dr. Suk is Chief, Hazardous Substances Research Branch, and Director, Superfund Hazardous Substances Basic Research and Training Program [Superfund Research Program], National Institute of Environmental Health Sciences (NIEHS), National Institutes of Health (NIH). His primary interest is in the assessment of adverse effects on human health, primarily in vulnerable populations, resulting from exposure to deleterious environmental agents. Aside from a two-year period in which he was the Acting Deputy Director of NIEHS, Dr. Suk has served since its inception as Director of the NIH/NIEHS Superfund Hazardous Substances Basic Research and Training Program, a unique Program fostering interdisciplinary research and training approaches to address the complex problems associated with potentially hazardous environmental exposures, and to develop technologies to reduce these exposures, thereby reducing the burden of disease. Dr. Suk is currently or has been affiliated with a number of organizations and committees, including: member, roundtable on Environmental Health Sciences, Research, and Medicine of the Institute of Medicine of the National Academy of Sciences; member, International Advisory Board of the Chulabhorn Research Institute, Bangkok, Thailand; co-chaired the World Health Organization Consultation on Scientific Principles and Methodologies for Assessing Health Risks in Children Associated with Chemical Exposures; Chairman, Board of Directors of the Pacific Basin Consortium for Environment and Health. Dr. Suk has assisted in the conceptualization and implementation of research and training programs in children's environmental health, exposure biology (the exposome), and in understanding gene-environment interactions, to name but a few. Dr. Suk received his B.S. and M.S. in biology from American University, his Ph.D. in microbiology from the George Washington University Medical School, and his Masters in Public Health in health policy from the School of Public Health at the University of North Carolina at Chapel Hill. He has been or is on the editorial advisory boards of several international journals; is a member of several scientific societies; and has been a National Science Foundation fellow. Dr. Suk has been honored at the NIH with several NIH Director's Awards and with numerous NIH Award of Merit for his efforts, and has received the DHHS Secretary's Award for Distinguished Service. He was privileged with receiving the Roy E. Albert Memorial Award for Translational Research in Environmental Health from the University of Cincinnati; the Child Health Advocacy Award from the Children's Environmental Health Network; the John P. Wyatt Lecture Award in Environmental Health and Disease from the University of Kentucky; the Adel F. Sarofim Award for Outstanding Professional Achievement in Championing Research on the Origin, Fate and Health Effects of Combustion Emissions; the Society of Toxicology Founders Award; and the first Chairman's Award from the Pacific Basin Consortium for Environment and Health. Dr. Suk is a Fellow of the Collegium Ramazzini, the international society of scholars in environmental and occupational health. Dr. Suk is a Fulbright global scholar.