Non-communicable disease (NCD) poses a major threat to global health and the economies of both developed and developing countries. Risk of such disease, linked to obesity, is set in part during early life, when environmental influences including mother’s (and possibly father’s) diet, body composition and lifestyle affect the development of her fetus and newborn, establishing its responses to later environmental challenges such as an obesogenic lifestyle. Undernutrition remains an enormous problem throughout the developing world and in transitioning societies leads to mismatch with lifestyle. In both developing and developed societies over-nutrition leads to obesity, excessive gestational weight gain and gestational diabetes. Thus NCD risk is transmitted down multiple generations. Epidemiological, human clinical and basic science research indicates underlying mechanisms, many of which involve epigenetic processes. These can serve as early markers of later risk and may allow us to implement the necessary complex interventions. Even though NCD is a medical issue, the interventions needed to reduce risk will require wider social and educational initiatives as well as public health campaigns. We need to take a DOHaD perspective if we are to meet the obesity and NCD challenges across the lifecourse.

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ALL WELCOME!