

environmental epidemiology, and toxicology – to understand early-life environmental influences on health and biological mechanisms and considers how this understanding can improve mental health outcomes in children and in their families by the close monitoring of environmental influences on the disease course. The influence of perinatal and childhood exposure to tobacco and mercury in children's gut microbiota is also described.

The impact of natural environments on maternal and child health

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Contact with natural environments, including green spaces, has been associated with a wide range of health benefits in humans. In this context, exposure to greenspace has been related to reduced risks of pregnancy complications (e.g. gestational diabetes and pre-eclampsia) and adverse pregnancy outcomes (e.g. low birth weight). Greenspace also plays a critical role in the growth and development of children, having been associated with improved neurodevelopment (e.g. cognition, behaviour, and motor) and lower risks of both neurodevelopmental (e.g. ADHD and autism spectrum disorders) and mental health conditions (e.g. depression and anxiety) in children and adolescents. Exposure to green spaces has also been related to better physical health, including cardiometabolic health, in these age groups. The association with respiratory and allergic outcomes remains heterogeneous. All in all, available evidence supports the beneficial role of greenspace in maternal and child health.