



Preventing Childhood Cancer: A unique opportunity to identify preventable causes of cancer in children – January 2018

Facts:

- Every year, more than 200,000 children around the world develop cancer. While many in high-income countries are treated successfully, globally almost half of all children die.
- Survivors of childhood cancer may experience infertility, heart disease, muscular difficulties and secondary cancers, months or years after treatment has ended.
- Cancer is one of the major causes of death and serious illness in children in the developed world, and is a growing issue in low- and middle-income countries.

Partners:

The George Institute for Global Health,
University of Oxford

The International Childhood Cancer
Cohort Consortium (I4C) and its
constituent cohorts

Supporters:

National Cancer Institute, US

International Agency for Research on
Cancer, World Health Organization

Contact:

To find out more about the Preventing Childhood Cancer programme, its principal investigator and chair of the I4C steering committee Professor Terry Dwyer, or The George Institute for Global Health, please contact Emma Feeney +44 (0) 7864 652347, efeeney@georgeinstitute.org

Background:

Research around the world has resulted in some important successes in treating children with cancer, but much less attention has been paid to how the disease might be prevented. A child's risk of developing cancer is probably influenced by many factors, including age, genetics and environmental exposures. However, more evidence is needed on the importance of these factors if we are to advance our understanding of how interventions in early life might reduce the risk of childhood cancer.

Aims:

The George Institute for Global Health at the University of Oxford is leading the International Childhood Cancer Cohort Consortium (I4C), a pioneering study which aims to identify the preventable causes of childhood cancer so that measures can be taken to reduce the risks. The study will analyse whether factors such as infections, birth size, environmental chemicals, radiation, factors relating to the age of both parents, and genetics contribute to the risk of cancer in children.

Methods:

- The George Institute, Oxford is bringing together international, multidisciplinary teams of epidemiologists, scientists and clinicians.
- The study will include data from up to one million mothers and babies in cohorts from 10 countries around the world, and will analyse cancer in children from conception to the age of 15.
- Data is collected during pregnancy and from the baby well before any cancer occurs, which is the key to understanding whether factors contribute to the risk of developing the disease.

Impact:

- We have already found evidence that the incidence of childhood cancer rises with increasing birthweight, a finding which supports work done by others globally and gives us important clues about where to look next.
- If we were to obtain reliable data on whether or not infections or environmental chemicals might contribute to the risk of childhood cancer, it would be a ground-breaking step.
- Some of the risk factors we discover might be preventable, and the insights generated could support major public health efforts to reduce childhood cancer in future.

The George Institute For Global Health:

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