



The Japan Environment and Children's Study

For the future crew of the Earth

The Japan Environment and Children's Study (JECS) is a national birth cohort study started in 2011. It involves over 100,000 mother-child dyads to investigate a wide range of environmental factors and their effects on children's health and development.

What are the key questions?

We will examine the following questions:

- What environmental factors pose threat to children's health?
- How does foetal exposure to chemical substances affect children's health and development?
- What roles do other factors such as physical environment, life style, socio-economic status and genetics play in children's growth?

What health outcomes will be measured?

Priority health outcomes are: 1) reproduction and pregnancy complications, 2) congenital anomalies, 3) neuropsychiatric disorders, 4) allergic and immune system disorders and 5) metabolism and endocrine system disorders.

What are the target chemicals?

Chemicals of interested include:

- Metals (e.g. lead, cadmium, mercury, manganese, arsenics)
- Persistent organic pollutants (e.g. PCBs, flame retardants, pesticides, fluorinated surfactants)
- Phthalates
- Phenols (e.g. bisphenols, nonylphenols, parabens)
- Triclosan, benzophenone, cotinine, phytoestrogens, etc.
- Volatile organic compounds, aldehydes, nitrogen oxides, fine particulate matter (e.g. PM2.5)

What is it run?

Pregnant mothers were recruited. The children born to the mothers are being followed until they reach 13 years of age.



If you would like further information about this study please email to National Centre for Japan Environment and Children's Study (jecs-en@nies.go.jp).

Who takes part in this study?

We registered 103,099 mothers, 100,108 children and 51,909 fathers.

