

# JAPAN ENVIRONMENT AND CHILDREN'S STUDY – PILOT STUDY AND RESEARCH LAUNCH

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**Background and Aims:** Basic Plan of the Japan Environment & Children's Study (JECS) formulated in 2010 is aimed at identifying environmental factors affecting children's health. The study follows birth cohort studies such as the Hokkaido (20,000 children) and Tohoku (1,300 children). JECS is designed on a large scale to study multiple hypotheses concerning the impacts of environmental chemicals on pregnancy and reproduction outcomes, congenital abnormalities, psychoneurological development, the immune system and allergies, and the endocrine system.

**Methods:** Participants of the Study are 100,000 newborns and their parents. Recruitment of pregnant mothers will span a 3-year period commencing in January 2011 with following-up until the age of 13. A community-oriented hospital-based recruitment approach was adopted, covering more than 70% of deliveries in each 15 region. The target recruitment ratio of 70% will ensure the participation of more than 50% of the births. Regular questionnaires, biospecimens and environmental samples will be collected and analyzed. Results and medical outcome will be stored in a database and analyzed by the research group, and also made available for other studies

**Results:** In the pilot studies, recruitment started in two regions by four universities in February 2009. Consent was obtained from 453 pregnant women, the recruitment ratio ranging from 69.3% to 98.5%. The lessons obtained in the pilot study are incorporated into JECS continually. In JECS, many research coordinators were trained with common manuals related to informed consent, protection of personal information, etc. The recruitment and collecting data are being conducted in each 15 regional unit centers in Japan.

**Conclusions:** JECS will be the largest birth cohort study in Japan, and one of the largest in the world. It is expected that the Study will result in a great scientific contribution of the children's health and environment.