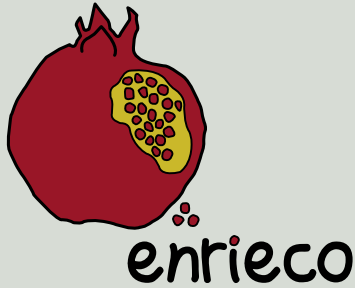


Environmental Health Risks in European Birth Cohorts

www.enrieco.org

Coordination and Support Action: FP7-ENV-2008-226285



TECHNICAL LEAFLET

Project acronym: ENRIECO

Full title of Project:
Environmental Health Risks
in European Birth Cohorts

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There are many pregnancy and birth cohorts in Europe, with sample sizes ranging from a few hundred to tens of thousands and a number of them aim to examine environment and health relationships. The project brought together information on 36 cohorts and more than 350,000 newborns, infants and children in Europe.

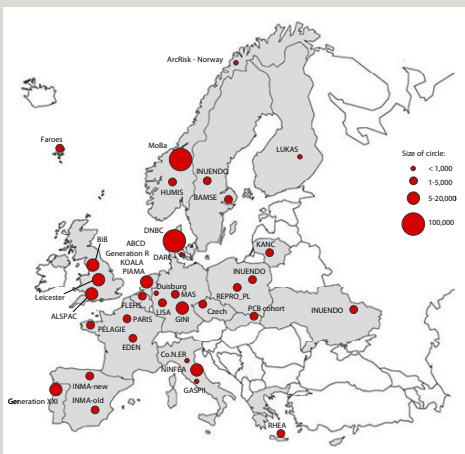
Project aims and objectives

The overall aim of ENRIECO was to advance our knowledge on specific environment and health causal relationships in European pregnancy and birth cohorts by providing support to exploitation of the wealth of data generated by past or ongoing studies funded by the EC and national programmes. Specific objectives were to make inventories of birth cohorts, assure quality and interoperability of exposure, health and exposure-response data, obtain data access, build databases, conduct analysis, make recommendations for data collection in the future to improve environment-health linkages and information, and disseminate the information.

Summary of ENRIECO conclusions

There are many pregnancy and birth cohorts in Europe with information on environmental exposures and health outcomes, with a fairly good cover of Europe, except Eastern Europe. Cohorts have provided important environmental exposure, health and environmental exposure-response data although the amount and detail of information provided by cohorts on environment and health differs considerably.

There is considerable expertise and experience associated with the cohorts, and a great effort goes into them. However, greater and more efficient use needs to be made of the existing cohort data at the European level to:



A project conducted within the European
Union's 7th Framework Programme -
Theme 6, Environment

- Provide speedy response to key policy questions
- Provide speedy response to concerns about “new” environmental exposures
- Improve understanding of geographical and cultural inequalities in disease, exposure, and health related behaviours
- Replicate findings with important public health implications in different settings
- Link with routinely collected environmental and health data
- Improve methodological approaches, including protocols of biological and environmental sample collection and analysis
- Improve statistical power through combined analyses

Cohorts tend to report individually, but recent initiatives have tried to combine data from various cohorts to increase e.g. power (overall and subgroups). Existing European birth and mother-child cohorts provide a real potential for combined analyses on pregnancy-related outcomes and child health outcomes in relation to environmental exposures, as combining information from different cohorts appears to be beneficial and increase the value of the cohorts and resulting information. Such combining data from various cohorts requires careful consideration of the aims, protocols, data, ethical issues, analyses and management; it is time and labour intensive with currently limited resources to combine existing studies/data but potential fruitful.

Follow up of existing cohorts is essential to determine health effects in later life of prenatal and early childhood exposure, for which there is some but not conclusive evidence, whereas new pregnancy and birth cohorts are needed to evaluate any potential health effects of new environmental exposures, or existing environmental exposures under new conditions.

More detailed conclusions, including recommendations, have been provided to the European Commission, and are available in the final project report.

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