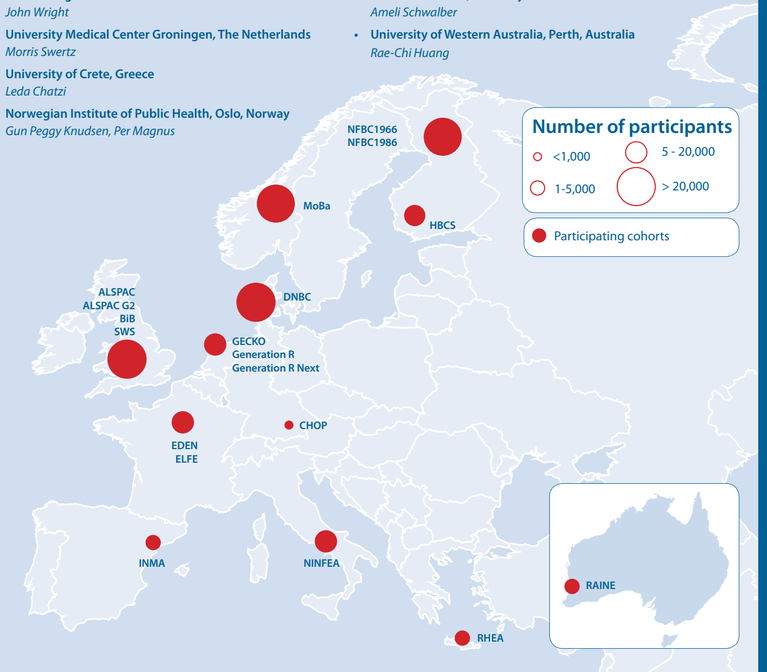
Partners

This multinational and multidisciplinary consortium consists of 18 partners from 11 different countries.

- **Erasmus University Medical Center Rotterdam, The Netherlands**
  Vincent Jaddoe (Coordinator), Janine Felix, Liesbeth Duijts
- **ISGlobal, Barcelona, Spain**
  Martine Vrijheid, Jordi Sunyer
- **University of Turin, Italy**
  Lorenzo Richiardi
- **University of Southampton, United Kingdom**
  Mark Hanson, Hazel Inskip
- **University of Bristol, United Kingdom**
  Debbie Lawlor
- **University of Copenhagen, Denmark**
  Anne-Marie Nybo Andersen
- **Bradford Teaching Hospitals NHS Foundation Trust, United Kingdom**
  John Wright
- **University Medical Center Groningen, The Netherlands**
  Morris Swertz
- **University of Crete, Greece**
  Leda Chatzi
- **Norwegian Institute of Public Health, Oslo, Norway**
  Gun Peggy Knudsen, Per Magnus
- **French National Institute of Health and Medical Research (INSERM), Paris, France**
  Marie-Aline Charles
- **University of Oulu, Finland**
  Marjo-Riitta Järvelin, Sylvain Sebert
- **Samfundet Folkhälsan, Helsinki, Finland**
  Johan Eriksson
- **Ludwig Maximilians University of Munich, Germany**
  Berthold Koletzko
- **VU University Amsterdam , The Netherlands**
  Maarten Lindeboom
- **Slimmere Zorg B.V., Bussum, The Netherlands**
  Arno Bisschop
- **Concentris Research Management GmbH, Fürstenfeldbruck, Germany**
  Ameli Schwalber
- **University of Western Australia, Perth, Australia**
  Rae-Chi Huang



LifeCycle

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Further information can be found at
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LifeCycle Project

LifeCycle

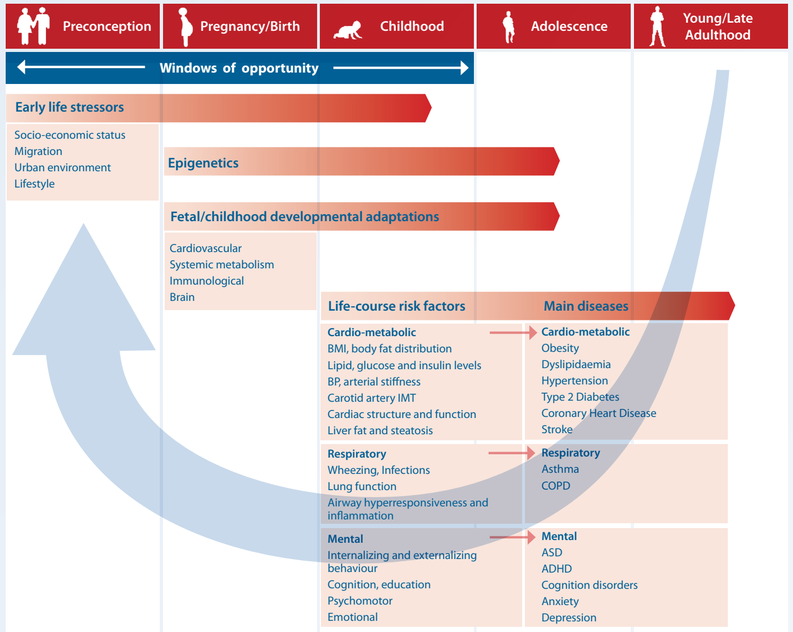
Early-life stressors and LifeCycle health

www.lifecycle-project.eu

This project received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No 733206 (LifeCycle)

LifeCycle

LifeCycle will bring together pregnancy and child cohort study researchers into a new, open and sustainable network, the EU CHILD Cohort Network. This network will be used to identify novel markers of early-life stressors which may affect health trajectories throughout the lifecycle.
This ambitious project combines data on over 250,000 children and their parents from Europe and Australia to provide robust scientific evidence on lifecycle health.



The LifeCycle objectives

1. Establish a new, open and long-term multidisciplinary **EU CHILD Cohort Network**, which brings together existing data from **pregnancy and childhood cohort studies**. We will develop a governance structure, a safe data sharing platform and strategies for data harmonization.
2. Enrich the EU CHILD Cohort Network with **novel integrated data on early-life stressors** related to socio-economic, migration, urban environment and lifestyle determinants.
3. **Identify early-life stressors** influencing cardio-metabolic, respiratory and mental **developmental adaptations and health trajectories** during the full lifecycle.
4. Develop **analytical methods** for **causal inference and longitudinal modelling** in observational cohort studies and develop tutorials, organize methodological workshops and develop e-learning modules that will be widely disseminated to the research community.
5. Identify **DNA methylation markers** mediating the relations of early-life stressors and health trajectories during the full lifecycle.
6. Review findings from research, and develop **recommendations for public health strategies** on individual and population level on modification of early-life stressors (socio-economic, migration, urban environment and lifestyle determinants), related to lifecycle health trajectories.
7. Develop **models to predict the onset and evolution of risk factors** for cardio-metabolic, respiratory and mental outcomes throughout the life course. These models will be translated into mobile eHealth applications to provide individually customized advice for pregnant women and young children.

EU Child Cohort Network

Project details

Start date: 01/01/2017
Duration: 60 months

Coordinator
Prof. Vincent Jaddoe, MD, PhD
Erasmus University Medical Center Rotterdam

Project manager
Sylvie van den Assum
Erasmus University Medical Center Rotterdam

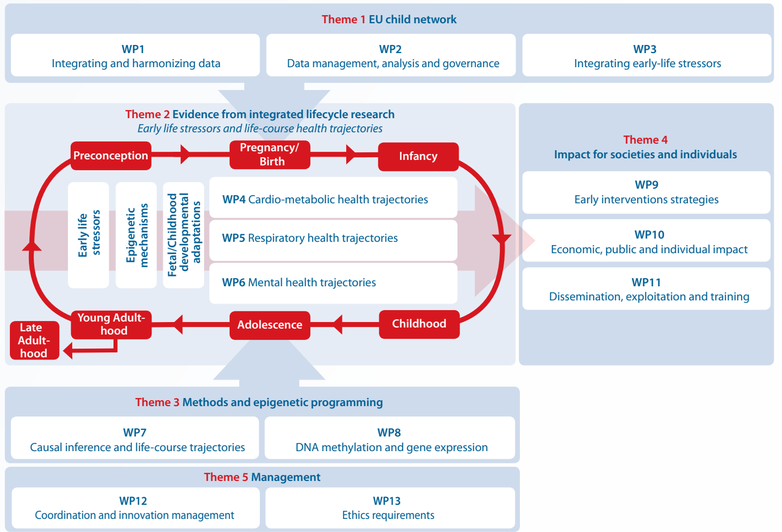
Themes and work packages

LifeCycle is organized in 5 themes and 13 work packages

Theme 1 (WP1-3) will focus on establishing and maintaining the EU CHILD Cohort Network, including data harmonization and development of the data management and analysis platform. In addition, theme 1 will construct integrated exposure indices for early-life stressors, including the overall integrated exposome measure.

Theme 2 (WP4-6) will perform integrated hypothesis driven research on early-life stressors and lifecycle trajectories of cardio-metabolic, respiratory and mental health.

Theme 3 (WP7-8) will focus on novel analytical methods and epigenetic programming as a potential underlying mechanism.

Theme 4 (WP9-11) will focus on impact of LifeCycle through development of recommendations for interventions on early-life stressors and for public health strategies. In addition, theme 4 will develop eHealth applications for personalized prevention, and manage effective dissemination, exploitation and training programmes.

Theme 5 (WP12-WP13) will provide management and coordination of LifeCycle and will monitor the ethical aspects of the project.