

Ongoing Research Project Overview

Department for Maternal, Newborn, Child & Adolescent Health

Healthy Life Trajectories Initiative (HeLTI)

Background /Rationale

The Healthy Life Trajectories Initiative (HeLTI) is a collaboration between researchers in Canada, China, India, South Africa with technical support from the World Health Organization (WHO). Intervention cohorts will test the effect of interventions starting preconception and continuing through pregnancy and into childhood to prevent obesity and risk factors for non-communicable diseases in children. The study will also evaluate the impacts on early childhood development.

Study Questions & Design

Four linked intervention cohorts that will implement and test approaches to prevent overweight and obesity in children and risk factors for non-communicable diseases (NCDs), and improve early childhood development (ECD). Three of the cohorts will implement cluster randomised designs while the fourth will be an individual randomised controlled study. The initiative is founded on developmental origins of health and disease concept (DOHaD) and will examine the cumulative effects of interventions starting preconception and continuing through pregnancy into childhood. The intervention packages will aim to optimise the nutritional state and metabolic health of women/mothers, reduce stress and anxiety, and mitigate specific risk factors that may increase NCD risks in their children. A package of interventions will prepare and support mothers in their infant feeding practices and promote responsive caregiving and other parenting skills to improve ECD outcomes.

Each cohort will recruit between 6,000 - 9,000 women in the preconception period. The primary outcome measure is body composition of offspring at 4-6 years of age in addition to measures of child development at 2 or 3 years of age.

Programmatic Implications

The goal of HeLTI is to generate evidence that will inform national policy and decision-making for the improvement of health and the prevention of NCDs throughout the lifespan and to improve ECD outcomes. In particular, to estimate the effectiveness and cost of interventions implemented in the preconception period on NCD risks and ECD outcomes.

Locations & Collaborators

Canada, China, India and South Africa

Data Collection

Cohorts will start recruiting at different times during 2018 and are expected to take 18-24 months each. Data collection will continue until approximately 2025.

Funders

Canadian Institutes of Health Research (CIHR); Department of Biotechnology (DBT - India); National Natural Science Foundation of China (NSFC); South Africa Medical Research Council (SAMRC).

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