Innovative Research Methods to Study Children with Multiple Chronic Conditions

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Description

Children with multiple chronic conditions represent an important group of individuals who receive inadequate quality of healthcare and experience suboptimal health outcomes. Two methodological challenges are particularly problematic when studying children with multiple chronic conditions: 1) the ability to comprehensively measure and group comorbid conditions for children and 2) the ability to assess pediatric comorbidity burden on a population level. This proposal validates and tests an innovative set of methods that will help overcome these challenges.

Specific Aims

1. Adapt for children a publicly available diagnosis classification scheme to name and count coexisting chronic conditions.
2. Determine the prevalence and health care cost and utilization of MCC children.
3. Describe relative contributions of combinations of chronic conditions to prevalence and to healthcare cost and utilization.
4. Employ an innovative machine learning method to predict association of chronic conditions with healthcare cost and utilization in children.

Main Objective

Address methodological barrier in studying children with multiple chronic conditions.

Chronic Conditions Considered

Not specified

Study Design, Data Sources & Sample Size

Secondary data for 10.7 million children with comprehensive Medicaid claims from 28 States and 3.7 million hospitalized children from AHRQ's HCUP-Kids' Inpatient database.

Strategies Addressed from the HHS Strategic Framework on Multiple Chronic Conditions

4.B. Understand the epidemiology of multiple chronic conditions

4.C. Increase clinical health research