Nested project 1

Height, weight, and body mass index in Switzerland (Responsible: Kuehni).

### Study Overview

The study aims to gather anthropometric data in Switzerland to aid in the diagnosis, monitoring, and treatment of pediatric patients. The prevalence and management of obesity in Swiss hospitals will also be assessed. The study will compare data between Switzerland and the US. Statistical power is large, with roughly 28,000 inpatients and 246,000 outpatients from all university hospitals per year.

### Study Objectives

1. Assess the feasibility and quality of extracting anthropometric data from EHRs.
2. ce of obesity and related risk factors.
3. Assess the fit of anthropometric data from EHRs with Swiss growth charts.
4. Investigate the recognition and management of obesity in participating clinics.
5. Compare data between Switzerland (SwissPedData) and the US (PEDSNet) 104-106.

### Methods

Extract datasets for in- and outpatients from 2017-2023. Collect information on demographics, anthropometrics, relevant lab codes, diagnostic codes, and procedures. Link perinatal anthropometric data from the SFSO.

### Significance

The study results may contribute to new growth charts. The study provides novel data on the extent of obesity in Switzerland.

## Original description

NP1: Height, weight, and body mass index in Switzerland (Responsible: Kuehni).

Background: Anthropometric data are essential for diagnosis, monitoring and treatment in pediatrics. Obesity is a global health problem. Despite this, we lack contemporaneous reference data in Switzerland and we know little about prevalence and management of obesity in Swiss hospitals.

Aims: 1) Assess the feasibility of extracting anthropometric data from EHRs, and assess data quality; 2) Assess prevalence of obesity and related risk factors; 3) Assess the fit of anthropometric data from EHRs with Swiss growth charts; 4) Investigate the recognition and management of obesity in participating clinics; 5) Compare data between Switzerland (SwissPedData) and the US (PEDSNet) 104-106.

Methods: Extract datasets for in- and outpatients from 2017- 2023, with information on demographics, anthropometrics, relevant lab codes (Hb A-1 C, lipid status, ALAT, ferritin), diagnostic codes, and procedures. Link perinatal anthropometric data from the SFSO. Statistical power is large, with roughly 28,000 inpatients and 246,000 outpatients from all university hospitals per year and a reference dataset from the US containing data from over 12 million children.

Significance: Results may contribute to new growth charts and provide novel data on the extent of obesity in Switzerland.