

# The Sarphati Cohort: a unique dynamic cohort study in Amsterdam

Joanne Ujčić-Voortman<sup>1,2</sup>, Marleen Johannes<sup>2,3</sup>, Joy Hall<sup>1,2</sup>, Luuk Haring<sup>1,2</sup>, Anton Janssen<sup>1,2</sup>, Angelina Hammond<sup>1,2</sup>, Jaap Seidell<sup>2,4</sup>, Arnoud Verhoeff<sup>1,2</sup>

1. Public Health Service Amsterdam, Dept. of Epidemiology, Health Promotion & Care Innovation. Amsterdam, the Netherlands
2. Sarphati Amsterdam, research for healthy living. Amsterdam, the Netherlands
3. Public Health Service Amsterdam, Dept. of Youth Health Care. Amsterdam, the Netherlands
4. VU University, Faculty of Science, Department of Health Sciences. Amsterdam, the Netherlands



## Aim

With the Sarphati Cohort, a population based multi-ethnic dynamic cohort study, we systematically monitor growth and its determinants in Amsterdam children from birth until adulthood.

This enables us to 1) identify causes of non-communicable diseases such as obesity and 2) evaluate interventions to combat them.

## Background & scope

Childhood overweight and obesity have become an epidemic problem worldwide. In Amsterdam, 19% of all children are currently overweight.

Childhood obesity tends to track into adulthood, increasing the risk of the development of cardio-metabolic ill health. Therefore these numbers cause great concern for future health and healthcare. Early life prevention is critical.

The City of Amsterdam is committed to reducing obesity and helping all children achieve a healthy weight by 2033, with a number of initiatives underway, such as the Amsterdamse Aanpak Gezond Gewicht (AAGG).

As part of this commitment, the City has set up Sarphati Amsterdam: a newly established, unique collaboration between the City of Amsterdam and its research institutions focusing on innovative multidisciplinary research beneficial to preventing non-communicable diseases effectively and sustainably.

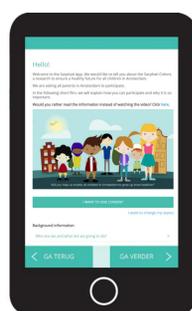
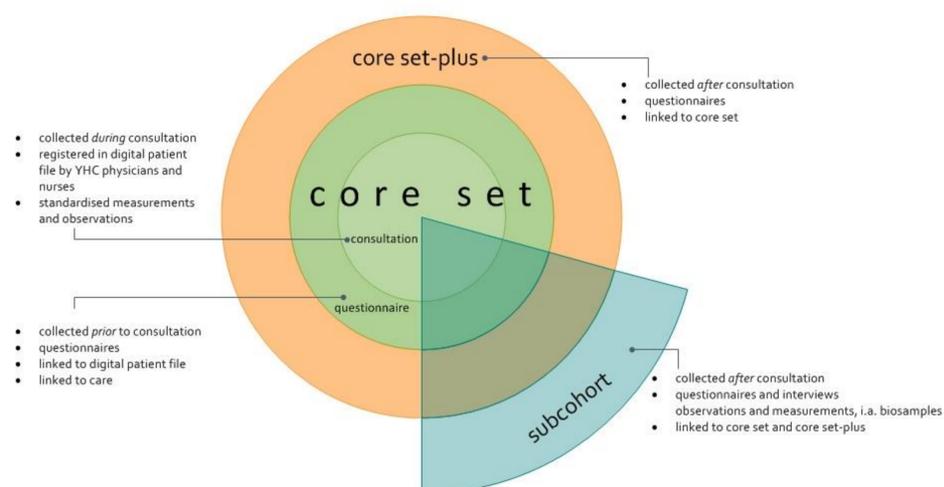
## Sarphati Cohort: growth & development of Amsterdam children

The basis for the Sarphati Cohort is the systematic monitoring of all children aged 0-18 who receive healthcare within the Youth Health Care (YHC) system in Amsterdam. Their development is closely tracked using standardized measurements, i.e. through routine consultations provided by YHC. Amsterdam has a population of ~150,000 children (0-18 y), with ~11,000 newborns yearly. The continuous inclusion of newborns gives the Sarphati Cohort its dynamic character.

Since November 2016, data on growth, sleep, nutrition, motor skills, physical activity, and demographics are systematically monitored and registered during 12 YHC visits in the first 4 years of life and 5 during childhood and adolescence. In addition to this core set of data, data will be collected outside of the YHC consultations, through age-specific questionnaires (core set-plus).

The Sarphati Cohort's infrastructure allows for more extensive data collection in subcohorts, e.g. biosamples, actigraphy, observations, diaries, in-depth interviews or additional questionnaires.

Sarphati Cohort  
schematic overview of the data collection



## Sarphati App: an innovative way to obtain informed consent

Informed consent is obtained through the Sarphati App. This allows us to inform parents about the aim and set-up of the Sarphati Cohort. The use of written text combined with audio, and animation makes the information accessible for parents with various social and cultural backgrounds.

After informed parental consent is obtained the anonymised data will be used for research within the scope of the Sarphati Amsterdam research agenda.

## Facilitating excellent research

The Sarphati Cohort's infrastructure allows for innovative research designs in a multi-ethnic population. Its magnitude and dynamic nature enable the evaluation of existing and new interventions to combat overweight.

With the Sarphati Cohort, Sarphati Amsterdam facilitates excellent research in the field of obesity and non-communicable diseases in general. This will contribute to the ambitious policy objectives of the City of Amsterdam to promote a healthy lifestyle and improve the quality of life of young people.