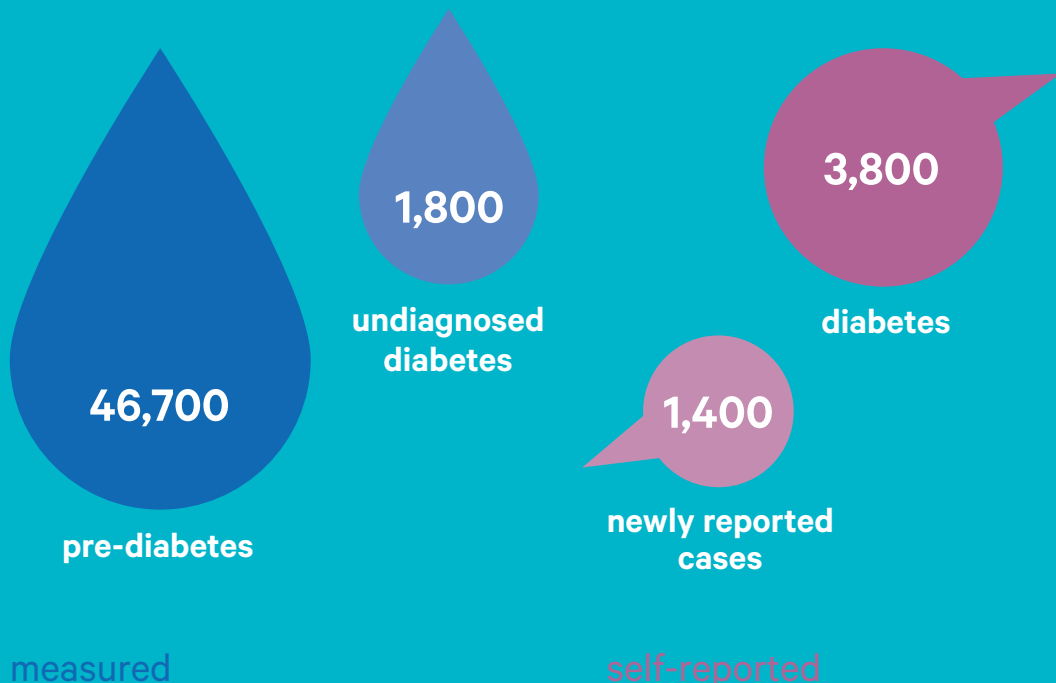
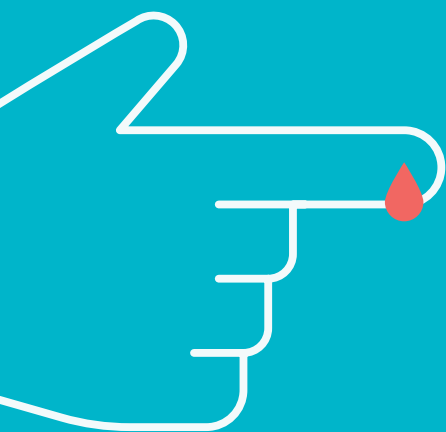


lifelines diabetes

The size and diversity of data and biological samples of the Lifelines cohort provide a unique opportunity for research.

number of Lifelines participants with:



which Lifelines data can contribute to scientific research on diabetes?

general

The participants are followed for 30 years. Longitudinal data and biological samples are available. This enables both prospective and retrospective research.

risk factors

A diverse set of data is available regarding the risk factors of diabetes. For instance: weight, cholesterol levels, smoking, ethnicity, drug use, stress, physical activity, environmental factors and nutrition.

genetic data

Genetic data and family relations within the Lifelines cohort enable a detailed investigation of the role of genes in the development of diabetes. DNA data (GWAS) is available of nearly 16,000 participants.

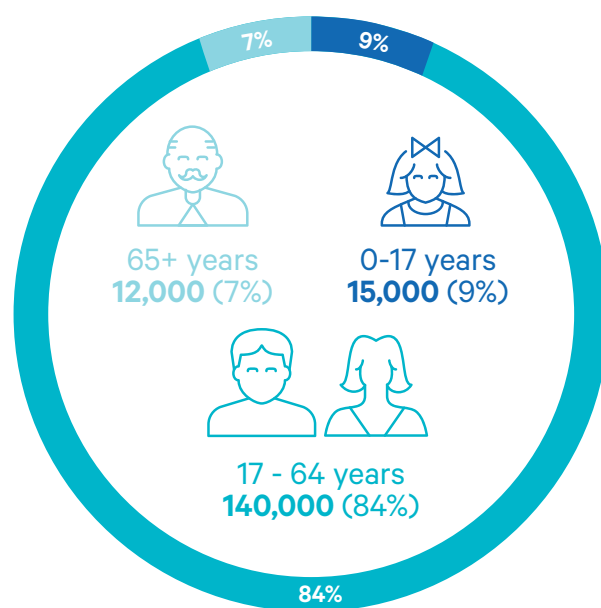
blood biomarkers

Measurements of fasting glucose, non-fasting glucose and HbA1c make it possible to determine objectively if participants suffer from diabetes and thus verify self-reported data.



lifelines cohort and biobank

Lifelines is a large scale cohort study that includes over 167,000 residents in the north of The Netherlands. Lifelines works with a combination of questionnaires, measurements and collection of biological samples, thus providing a unique source for research. Participants from three generations are followed for at least 30 years to get insight in healthy ageing and the important factors in the onset and progression of diseases. Participants receive a questionnaire once every 1.5 years to collect a large diversity of data. Additionally, participants are invited to a Lifelines location for a screening once every 5 years. During this visit biological samples are collected and several measurements and tests are conducted. Biological samples are stored at -80°C to ensure high quality and long term preservation.



total: 167,000 participants

available data & biological samples

measurements:

- anthropometry
- blood pressure
- ECG
- lung function
- cognition tests
- psychiatric interview

biological samples:

- blood (fasting)
- 24h urine
- faeces
- scalp hair
- DNA

follow up questionnaires:

- medical history
- lifestyle
- nutrition
- physical activity
- socio demographic factors
- quality of life
- symptoms
- personality
- stress
- social context
- etc