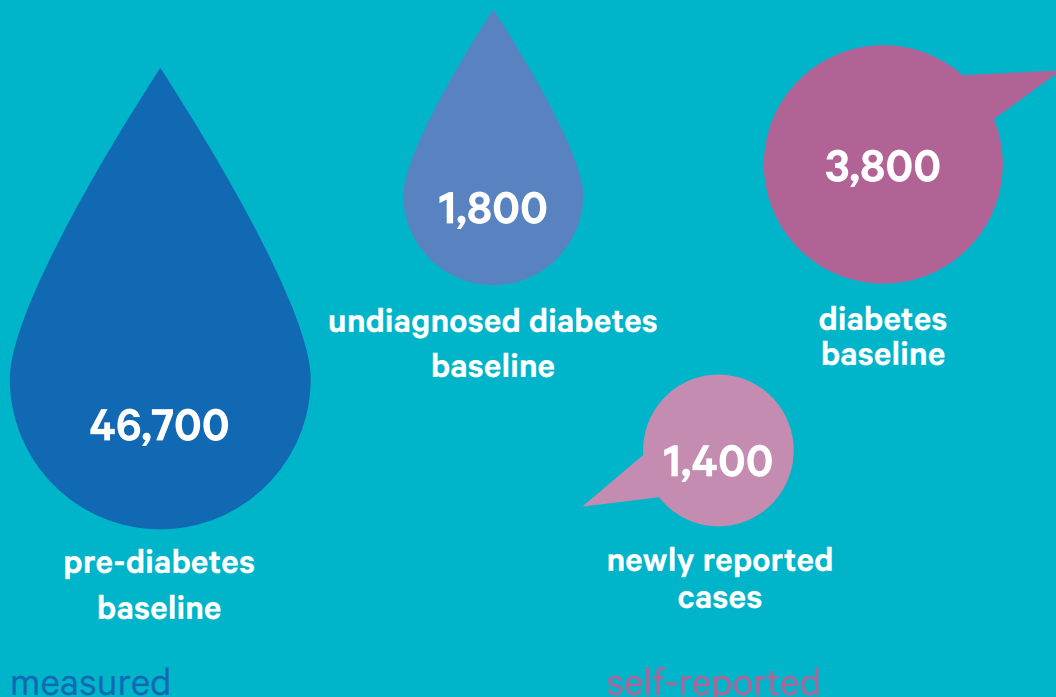# lifelines

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:

46,700
pre-diabetes baseline

1,800
undiagnosed diabetes baseline

3,800
diabetes baseline

1,400
newly reported cases

measured

self-reported

which of the Lifelines data could contribute to scientific research on diabetes?

general
Lifelines participants are followed for 30 years. This creates an opportunity for prospective and retrospective research. Both longitudinal data and longitudinal biological samples are available.

genetic data
The Lifelines cohort provides a unique combination of genetic data and family relationships. DNA data (GWAS) are available on 13,000 participants.
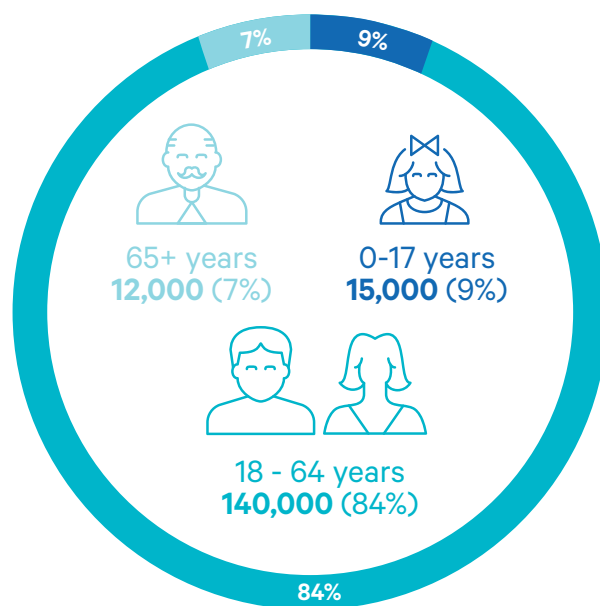
risk factors
A diverse data set is available on the risk factors of diabetes. These include weight, cholesterol levels, smoking, ethnicity, drug use, stress, physical activity, environmental factors and nutrition.

blood biomarkers
Fasting glucose, non-fasting glucose and HbA1c are measured in order to objectively determine if participants suffer from diabetes. This information can be used to verify self-reported data.

lifelines cohort and biobank

Lifelines is a large, multi-generational cohort study that includes over 167,000 participants from the northern population of the Netherlands. Lifelines works with a combination of questionnaires, measurements and biological samples; thus, providing a unique source for research purposes. Participants from three generations are followed for at least 30 years, to obtain insight into healthy ageing and the main factors relating to the onset and progression of diseases. Every 1.5 years, participants complete a questionnaire, in which they provide a wide variety of data. In addition, once every 5 years, participants are invited to visit a Lifelines location for a physical examination. 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.

7%

9%

65+ years
12,000 (7%)

0-17 years
15,000 (9%)

18 - 64 years
140,000 (84%)

84%

total: 167,000 participants

available data & biological samples

measurements:

- anthropometry
- blood pressure
- ECG
- lung function
- cognitive tests
- psychiatric interview
- skin autofluorescence

biological samples:

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

questionnaires:

- medical history
- lifestyle
- nutrition
- physical activity
- socio-demographic factors

- quality of life
- symptoms
- personality
- stress
- social context
- other

lifelines diabetes

Lifelines data are available to researchers, worldwide, in the field of healthy ageing. If you are interested in the possibilities Lifelines has to offer for research or policy development, please see our website: www.lifelines.nl, or contact us directly at research@lifelines.nl

@lifelinesNL   @lifelinesStudy   /lifelinesNL