

lifelines

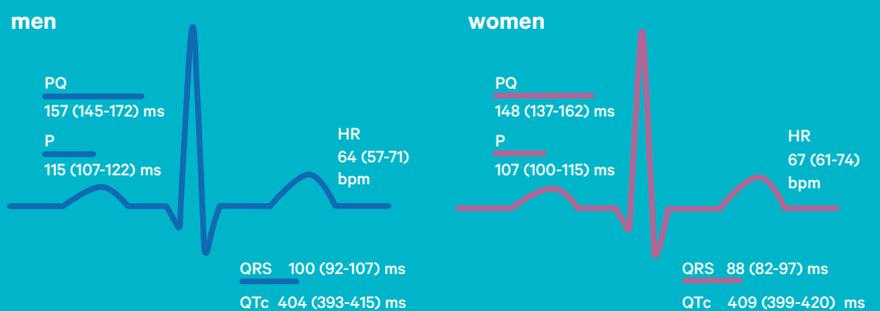
cardiovascular diseases

ECG measurements from the Lifelines cohort provide an overview of average values and ECG abnormalities among the general Dutch (Caucasian) population of the Netherlands.

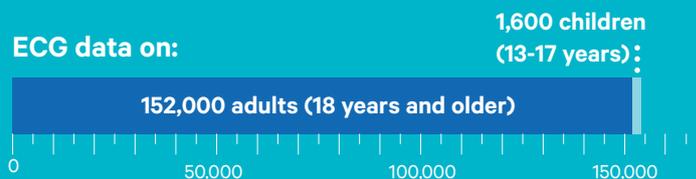
number of Lifelines participants with*:

	1,100	stroke baseline
	500	stroke newly reported cases
	1,500	myocardial infarction baseline
	500	myocardial infarction newly reported cases
	800	heart failure baseline
	1,500	heart failure newly reported cases

average ECG values:



source: van der Ende et al. (2017) doi.org/10.1002/clc.22737



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

risk factors

A diverse data set is available on the risk factors of cardiovascular diseases. These include hypertension, diabetes, weight, cholesterol levels, kidney disease, blood clotting disorder, family health history, smoking, stress, physical activity, physical environment and nutrition.

diseases and conditions

Data are available on 1,800 Lifelines participants who currently have or have had thrombosis, 700 who have or have had atherosclerosis, and 1,500 who have or have had a heart valve disorder. These data are based on self-reported information.

health problems and drug use

Problems and symptoms related to cardiovascular disease, such as chest pain and dyspnoea on exertion, have been surveyed in Lifelines questionnaires. Data are also available on drug use (e.g. drugs acting on the renin-angiotensin system, lipid drugs and beta blockers).

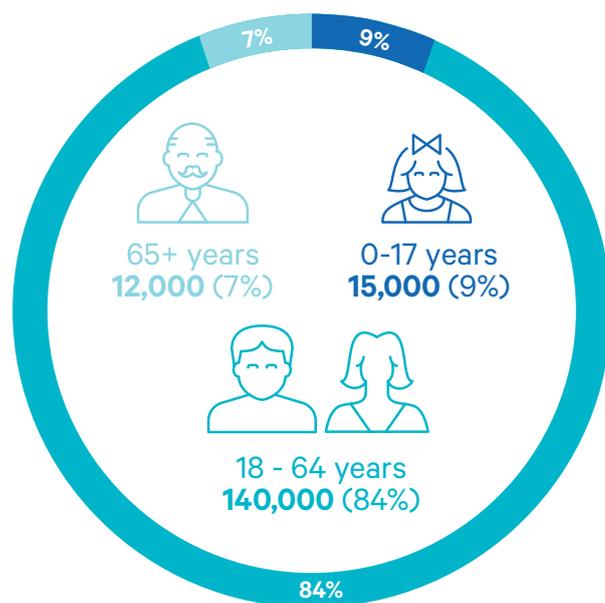
genetic data

The Lifelines cohort provides a unique combination of genetic data and family relationships. DNA data (GWAS) are available on 13,000 participants.



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.



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