The Challenge
Most studies investigating how to prevent cardiovascular diseases (CVD) have focussed on the risks of developing a heart attack and stroke and have contributed to the decline of both diseases of more than a third over the last decade.

By studying how women and men differ in their first lifetime presentation of a much broader range of CVDs, Farr Institute researchers hoped to find useful patterns that would help improve early disease prevention strategies.

The Research
Researchers analysed the medical records from nearly two million people aged 30 years or older who had never been diagnosed with any CVD. The records included data from primary care and hospital admissions, specialist CVD registry data and mortality data. The study followed patients for six years to examine how 12 different CVDs first present in women and men.

The Results
Of nearly 115,000 people who were diagnosed with CVD, most (66%) initial presentations were neither heart attack nor stroke. The study found that CVDs commonly first present with heart failure, transient ischemic attack (a “mini stroke” caused by a temporary disruption in the blood supply to part of the brain), stable angina, and peripheral arterial disease (a common condition caused by a build-up of fatty deposits in the arteries which restricts blood supply to muscles in the legs).

These diseases have seldom been the focus of studies that aim to prevent disease.

In women, the most common first CVD presentation was stable angina and in men it was non-fatal heart attack and abdominal aortic aneurysm. Researchers also found that age played an important role in the risk of developing different CVDs, and in men and women.

The Impact
By analysing data, the researchers highlighted the need for policy makers to focus CVD prevention strategies on other cardiovascular diseases such as angina and heart failure, taking into account the different association these diseases have with age and sex.

For more information about cardiovascular disease visit: www.nhs.uk/Conditions/cardiovascular-disease

Enquiries to Natalie Fitzpatrick, Data Facilitator, The Farr Institute of Health Informatics Research, n.fitzpatrick@ucl.ac.uk