# Blood Pressure Data

Francesco Lescai

2023-06-08

## Dataset

Different measurements and information have been collected from individuals, whose systolic blood pressure has been measured over time. The dataset includes the following data:

| age | gender | weight | exercise_level | diet | smoking |
|---|---|---|---|---|---|
| 56.57849 | female | 80.16453 | moderate | random | no |
| 62.75681 | female | 77.09822 | high | mediterranian | no |
| 62.09326 | male | 83.20005 | high | mediterranian | no |
| 55.81522 | female | 78.13360 | low | random | yes |
| 59.70793 | male | 96.18723 | moderate | prescribed | yes |
| 61.21326 | female | 84.72443 | moderate | random | no |

| alcohol | family_history | height | cholesterol_ldl | cholesterol_hdl | blood_pressure_systolic |
|---|---|---|---|---|---|
| 66 | no | 174.8924 | 153 | 95 | 71.76066 |
| 56 | no | 174.8524 | 159 | 119 | -90.22090 |
| 55 | no | 181.9110 | 174 | 106 | 223.83920 |
| 63 | yes | 177.1360 | 143 | 101 | 103.14357 |
| 55 | no | 178.8579 | 153 | 116 | 243.37449 |
| 53 | no | 177.9334 | 157 | 122 | 96.80330 |

- age
- gender
- weight: in kilograms
- exercise_level: self reported level of activity
- diet: a broad categorisation of the diet followed by the individual
- smoking
- alcohol: in cc consumed per week
- family_history: whether the indivual has a family history of hypertension
- height: in centimetres
- cholesterol_ldl: LDL blood levels
- cholesterol_hdl: HDL blood levels
- blood_pressure_systolic: average systolic blood pressure measured in the individual during the study

## Assignment

Please analyse this dataset using the most appropriate methods. Prepare a report discussing your choices step by step, and presenting a data-driven justification for the analytical decisions you made.

Provide evidence, if appropriate, of relationships of dependencies in the dataset, explaining how some of the variables might influence your findings.

Discuss in the report, where appropriate, any biological background which might support your findings.

Use the most appropriate computing environment to carry out this work, and explain the code and the choice you made in a dedicated section of the report.