Generation Scotland - Background

Generation Scotland (GS) is a family-based cohort study established as a resource for research into the genetic and environmental determinants of physical and mental health. Recruitment took place from 2006-2011.

24,084 Participants

5,501 Families

- Baseline questionnaire: 24,084
- Clinic visit: 21,476 (89%)
- NHS data linkage: 22,402 (93%)
- Genotype array data: 20,026 (83%)
- DNA methylation data: 18,869 (78%)

Re-Contact Studies

Participants consented to re-contact for prospective studies, which has led to several additional data collections relating to:

- Neuropathic pain - DOLORisk
- Depression - STRADL
- COVID-19 - COVIDLife
- Ageing - HAGIS
- Alzheimer’s disease - EPAD

Data Linkage

Participants consented to linkage to NHS medical records and other relevant sources which offer longitudinal phenotype information. Linkage is conducted using the Community Health Index (CHI) number.

- 147K SMR01 Hospital admissions (N=19,611)
- 4.7M Dispensed prescriptions (N=21,838)
- 13.5M GP records (N=19,675)
- 4.4K Scottish Cancer Registry records (N=3,606)
- 1.5K Diabetes Registry records (N=1,423)

Cohort Morbidities

Longitudinal disease incidence was obtained through health record linkage from primary and secondary care sources. Number of cases of common diseases in the GS cohort from 1980-2022:

- 2,517 Hypertension
- 2,484 Depression
- 2,154 Asthma
- 1,582 Heart Disease

As an example, diabetes cases can be captured in five data sources:

- SCI-DC: Scottish Care Information-Diabetes Collaboration
- PIS: Prescribing Information System
- SMR01: General/Acute and Inpatient Day Case dataset
- Laboratory testing data for HbA1c
- Self-reported baseline questionnaire

Data Access

Research proposals are subject to review by the GS Access Committee. Details of the application process and conditions for access are available at the study website:

https://www.ed.ac.uk/generation-scotland/for-researchers