

PRECISE-SG100K Resource

The PRECISE-SG100K Resource is a comprehensive research database of 100,000 healthy Singaporeans drawn from four major prospective population health studies in Singapore: NHCS-SingHeart, NTU-HELIOS, NUS-SPHS, and SERI-SEED. This extensive resource includes:

Research Phenotype Data

1. Questionnaire Data

- Detailed health and lifestyle information, including medical history, medications, behavioural risk factors, mental health, and socio-economic status
- Singapore-specific food frequency data, enabling detailed analysis of dietary patterns and nutrient intake
- Cognitive function assessments using validated memory and thinking tests

2. Physical Measurements

- Comprehensive anthropometric measurements
- Digital blood pressure readings
- 12-lead ECG for cardiac assessment
- Spirometry results
- 7-day physical activity data using Axivity tri-axial accelerometry

3. Advanced Imaging

- DXA scans for bone density and body composition
- Carotid ultrasound for cardiovascular assessment
- Detailed eye examinations including retinal photography, OCT, tonometry, and refraction
- Coronary artery calcification data (representative subset of 2,000 participants)

4. Molecular Data

The resource includes 30X whole genome sequencing data, generated in partnership with PRECISE (National Precision Medicine Programme) and a service-level agreement with Illumina.

*Please note: Data availability may be phased, with some datasets becoming accessible at later stages.