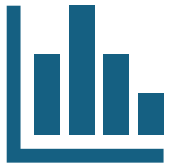

Where to get data?

Options

Collect your own



Biobank data

Other raw data sources

Places to get sumstats

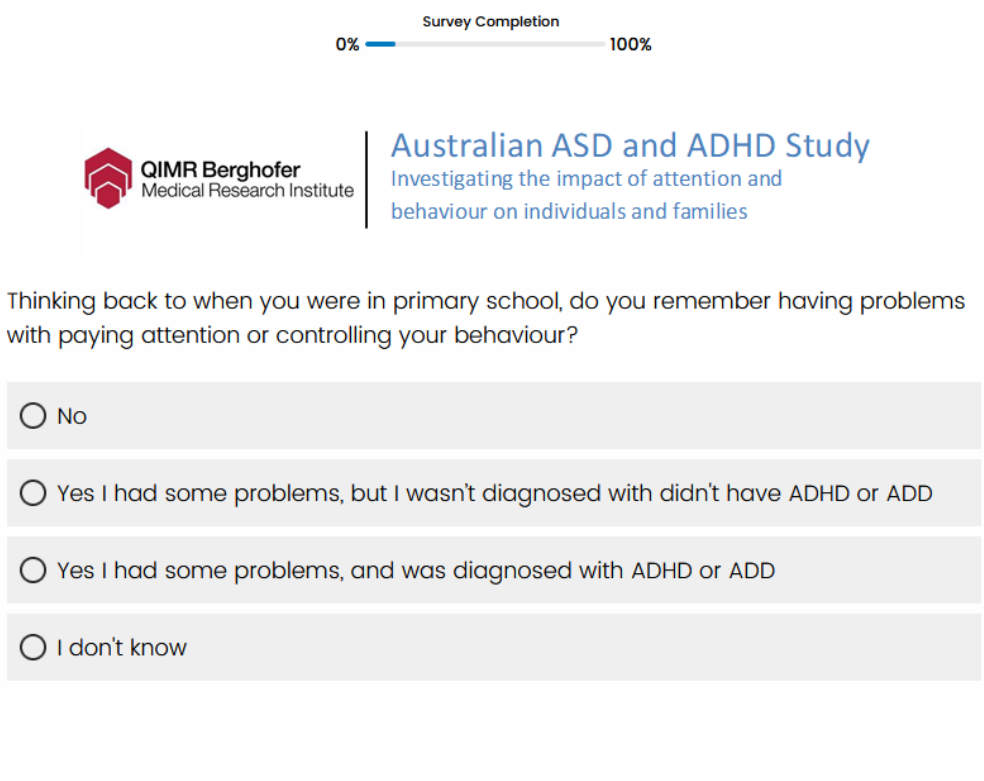
Collect your own data

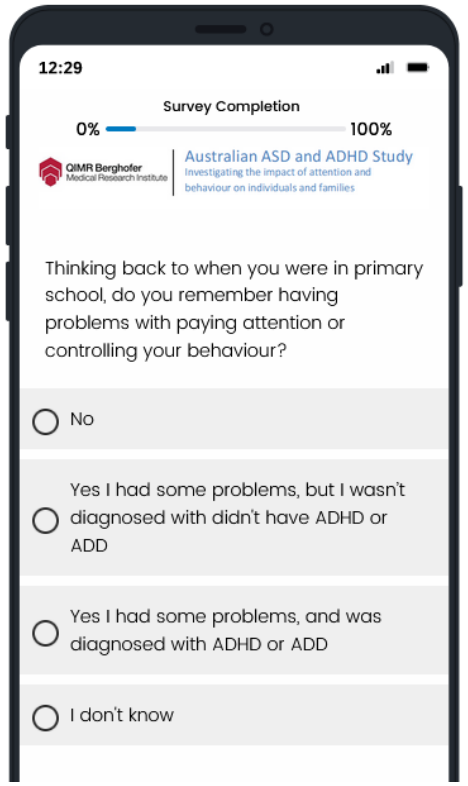
1. Recruit a large sample
   - From clinics
   - From the public

www.aaastudy.org.au

Collect your own data

2. Collect information from the participants



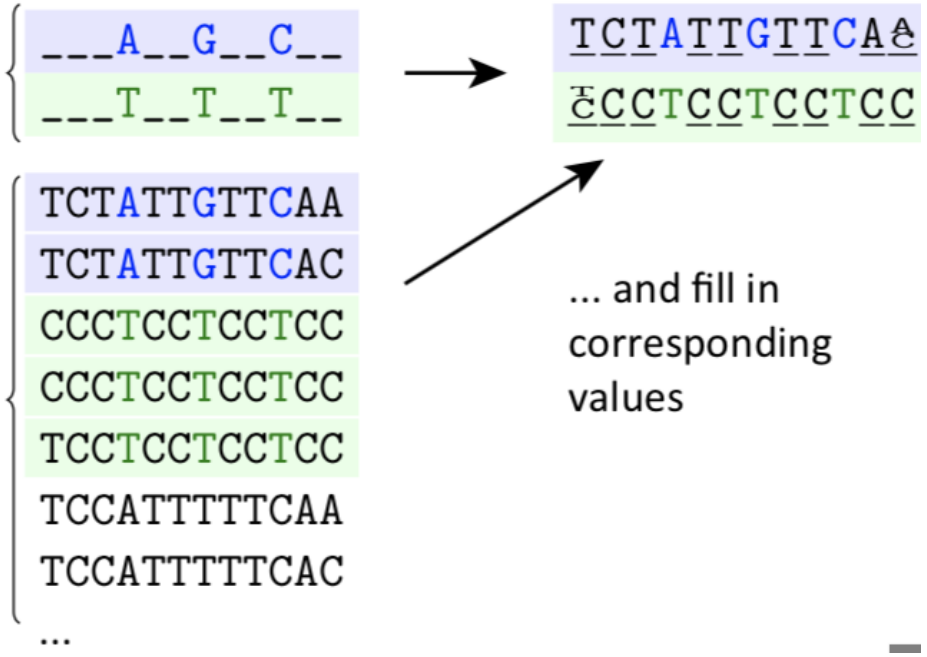


Collect your own data

3. Collect a DNA sample

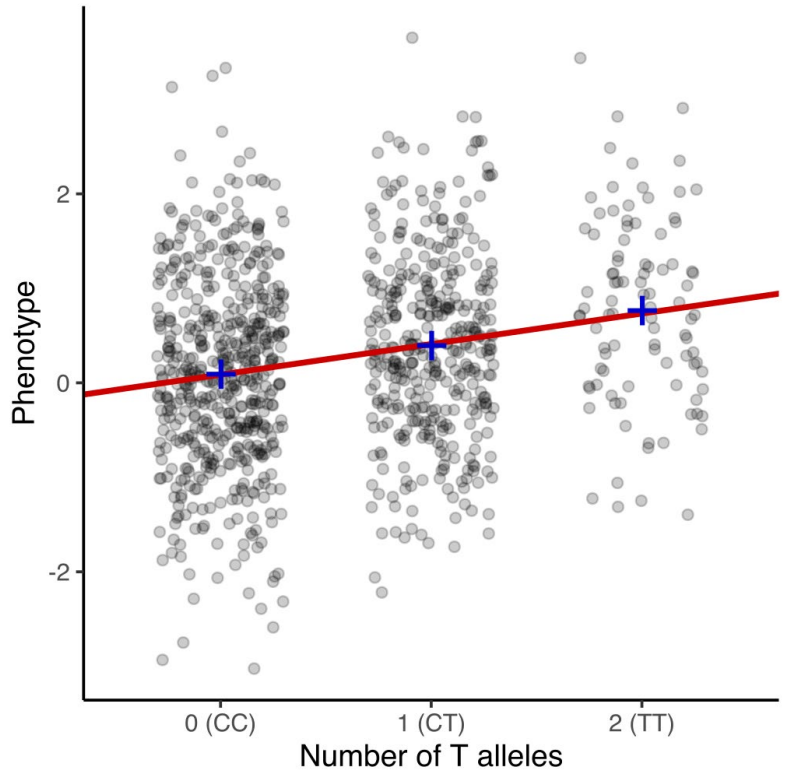
Collect your own data

4. Genotype the samples



Collect your own data

5. Look for genetic variants that can predict trait (regression)

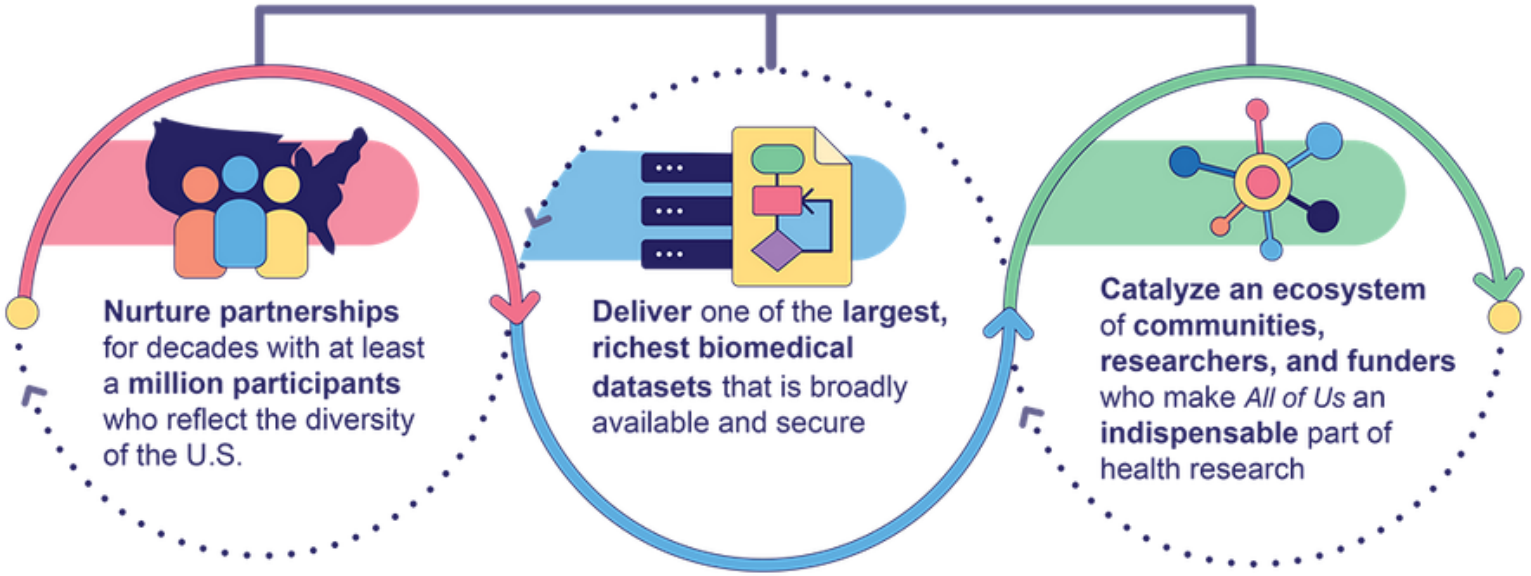


‘Open’ Biobanks

- Until recently you could apply to download the phenotypes and genotypes
- From now on you need to use the Research Analysis Platform (UKB-RAP)

‘Open’ Biobanks

- Access via RAP
  - Obtaining an account can be difficult if you are not a US person
  - No access/approval costs
  - Running costs $$$



Working on a RAP

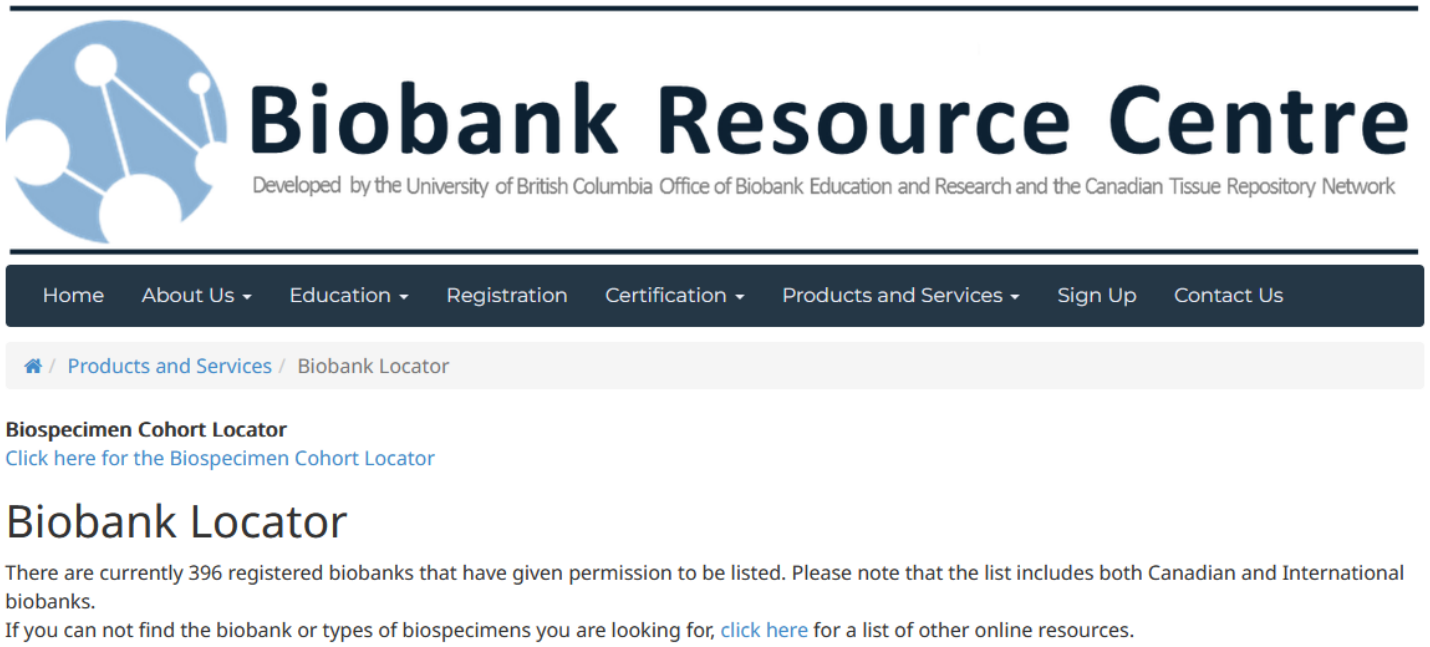
- RAP costs $$$$
- Remember to stop processes that are not needed
- Deleting data not needed
- Timing can be difficult to work out
- Share code and knowledge to help others
- Downloading data/results files may require approval
  - ALLofUS – approval to download sumstats took about 2 days

Smaller biobanks

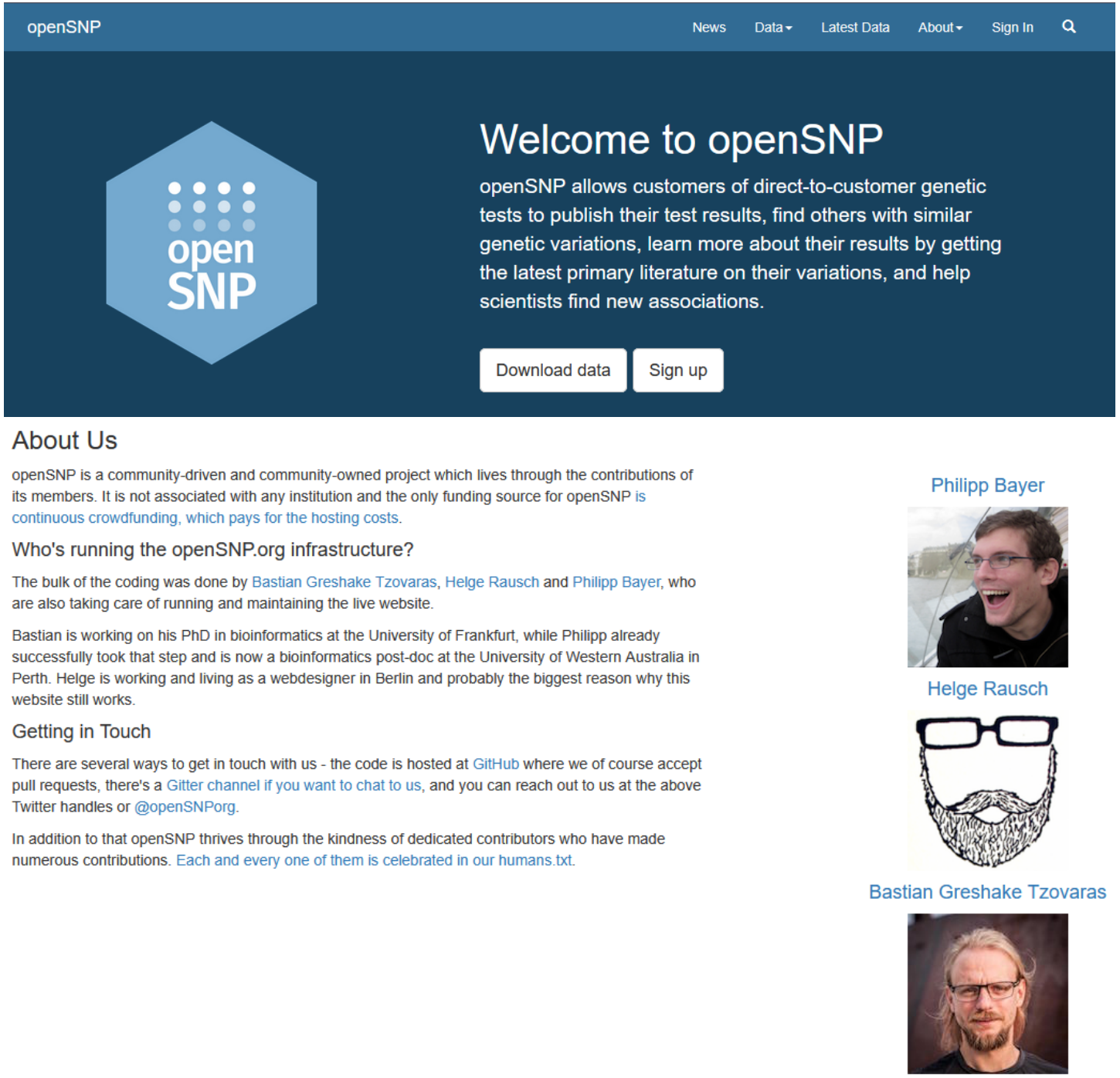
- Health and Retirement Study – https://hrs.isr.umich.edu/about
- Nurses health study - https://nurseshealthstudy.org/
- ROSMAP - https://dss.niagads.org/cohorts/religious-orders-study-memory-and-aging-project-rosmap/
- ALSPAC – https://www.bristol.ac.uk/alspac/

‘Closed’ Biobanks

- Access via collaboration - often via a data-buddy system
  - 23andMe
  - Million Veterans Study
  - BioVU
  - MOBA
  - Kadoorie Biobank
  - etc…



Other sources of raw (real) data



Open SNP

For genotyping users

Upload Your Genotyping

Upload your raw genotyping or exome data from 23andMe, deCODEme or FamilyTreeDNA to the openSNP database to make it available for everybody.

Share Your Phenotypes

Share your phenotype with other openSNP users and find others with similar characteristics and traits. Your data may help scientists discover new genetic associations!

Share your stories

With openSNP you can share stories about your genetic variations and phenotypes, and discover the stories of other users.

Find literature on genetic variation

openSNP gets the latest open access journal articles on genetic variations from the Public Library of Science. Popular articles are indexed via the social reference manager Mendeley and summaries are provided by SNPedia.

For Scientists

Search for phenotypes

Many diseases and traits are suspected to have genetical components. Genome Wide Association Studies are a simple tool find genetic markers. Easily find people with the variation you are interested in via openSNP. The variation you are looking for is not entered yet? Just add it to openSNP

Easily download datasets

The mass download-function of openSNP allows you to easily download the full genotyping raw-data in the file formats that are provided by 23andMe, deCODEme and FamilyTreeDNA. As the files can be grouped by their variations for specific phenotypes it is easy to get datasets that are already usable for association studies.

Get notified about new data

openSNP delivers a RSS feed for each phenotype. So you can easily get all new datasets that get available for the phenotypes of your interest, without the need to check for new entries by hand. For all data junkies that need more data: There is also a feed that carries all new datasets.

Places to get sumstats

- All of US phenotypes (run by the Broad) -

  you need a RAP account to be able to access
- UK Biobank phenotypes (run by the Broad) - https://pan.ukbb.broadinstitute.org/downloads
- FinGen - https://www.finngen.fi/en/access_results https://mvp-ukbb.finngen.fi/
- Million Veterans - https://www.mvp.va.gov/pwa/discover-mvp-data

Places to get sumstats

- PGC - https://pgc.unc.edu/for-researchers/download-results/
- GIANT - https://portals.broadinstitute.org/collaboration/giant/index.php/GIANT_consortium_data_files
- ENIGMA - https://enigma.ini.usc.edu/research/download-enigma-gwas-results/
- GWAS Catalogue - https://www.ebi.ac.uk/gwas/ (patchy)
- SSGAC - https://thessgac.com/ (requires account)
- Authors of papers

Questions, comments, concerns...