Access matter: representativeness of the UK Biobank resource

UK Biobank is not representative of the general population on a variety of sociodemographic, physical, lifestyle and health-related characteristics, with evidence of a ‘healthy volunteer’ selection bias. As a result, UK Biobank is not a suitable resource for deriving generalizable disease prevalence and incidence rates. However, the large sample size and heterogeneity of exposure measures allow for valid scientific inferences of associations between exposures and health outcomes that are generalizable to the wider population.

We advise that, where appropriate, publications that use UK Biobank data include a statement clarifying that “while UK Biobank participants are not representative of the general population (and hence cannot be used to provide representative disease prevalence and incidence rates), valid assessment of exposure-disease relationships are nonetheless widely generalizable and do not require participants to be representative of the population at large.”